

Figure 1.

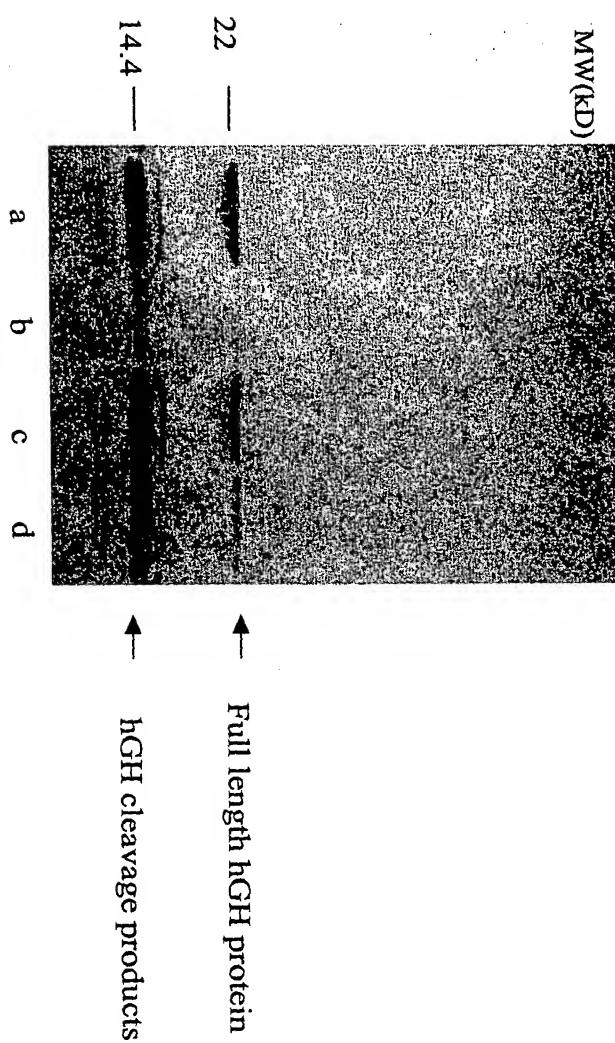
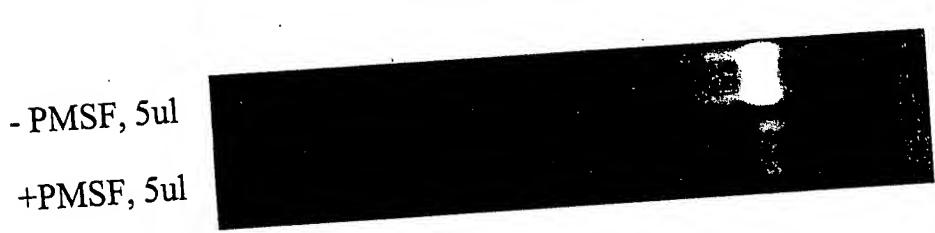


Figure 2.



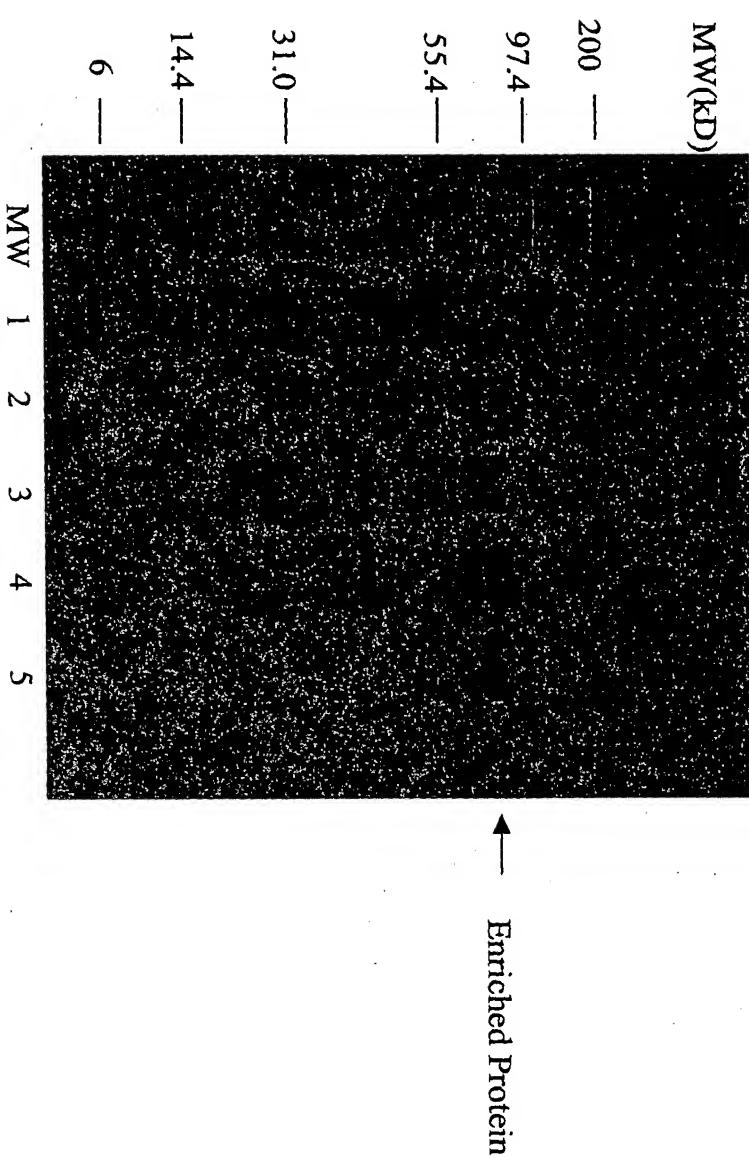


Figure 3.

Nicotianalisin
SEQID NO: 30

TTHTSDFLKL

Tomato

P69A TTHTSSFLGL
P69B TTHTPSFLGL
P69C TTHTPSFLGL
P69D TTRSPTFLGL
SBT1 TTRSPLFLGL
SBT2 TTHTSDFLKL
SBT3 TTHTSDFLKL
SBT4 TTYTFFGYLKL

Arabidopsis

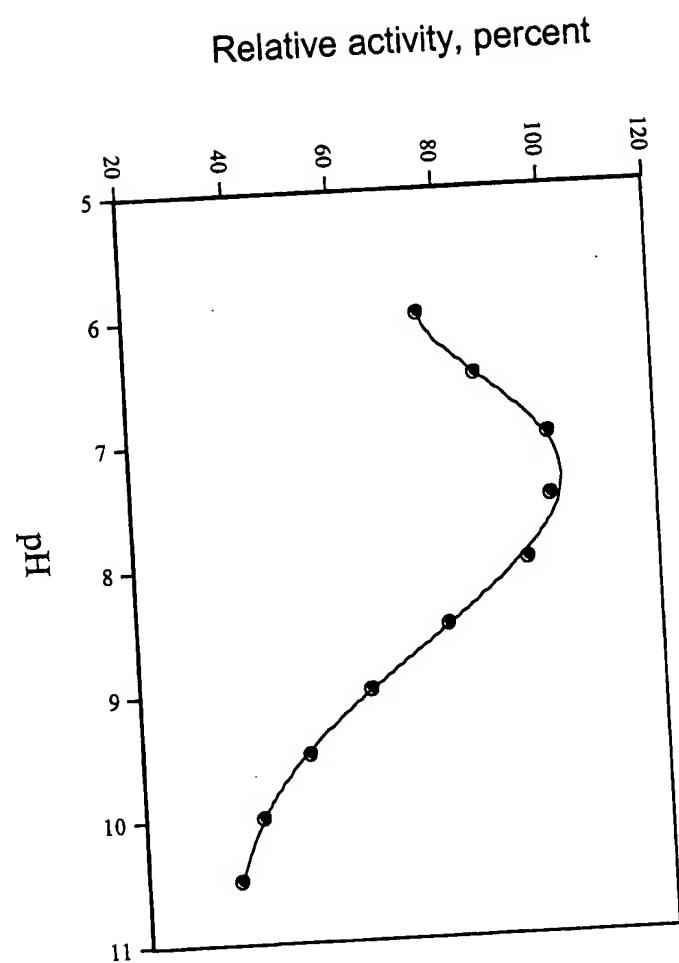
Air3 TTRSWDFLGL
Ara12 TTTRTPLFLGL

Consensus

TT FL L

Figure 4.

Figure 5.



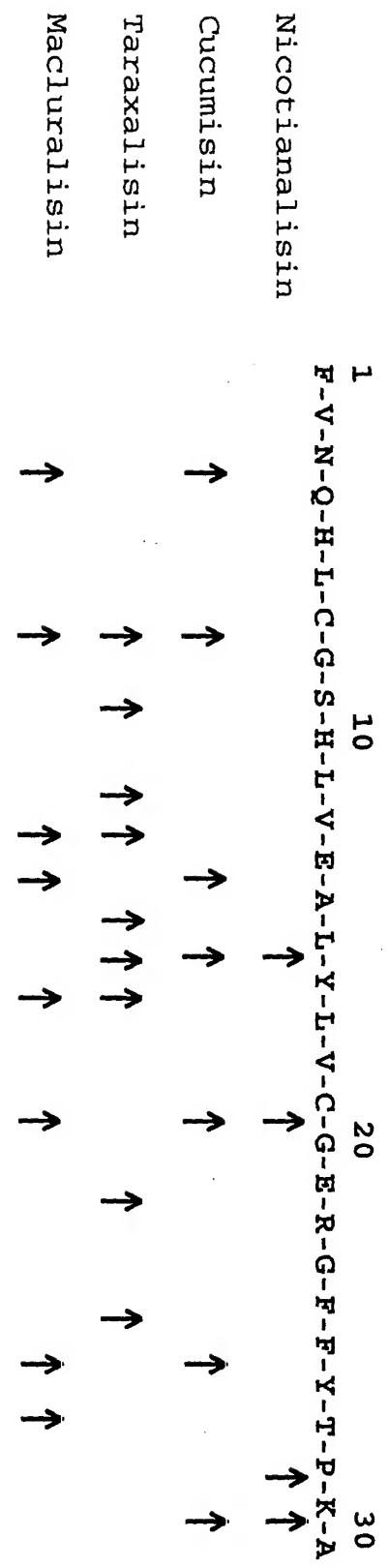


Figure 6.

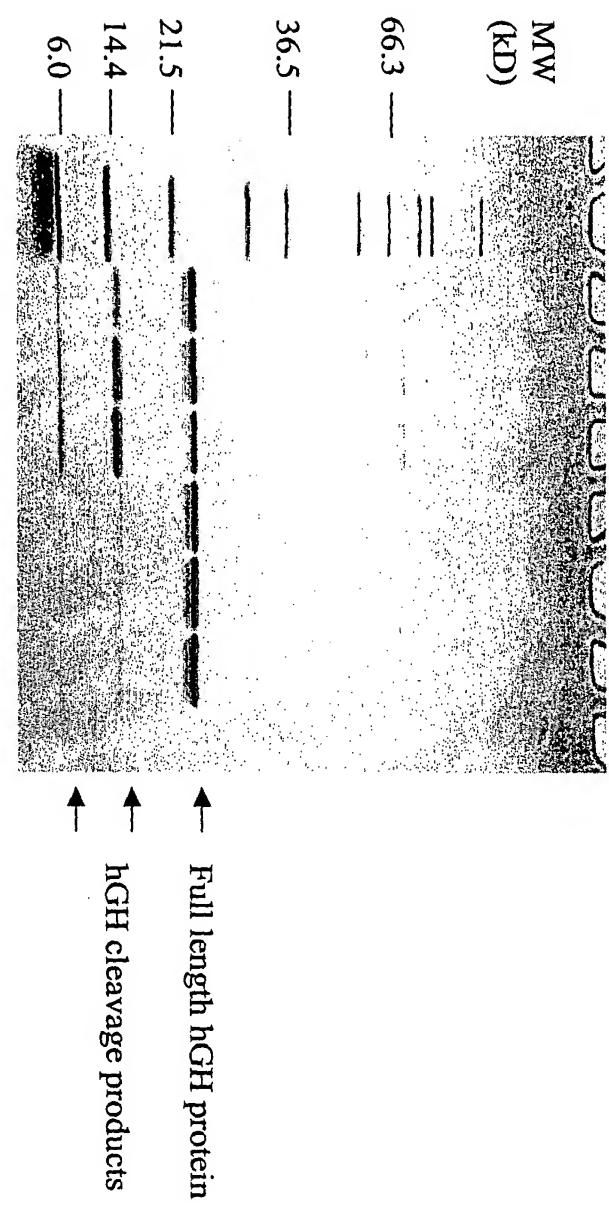


Figure 7.

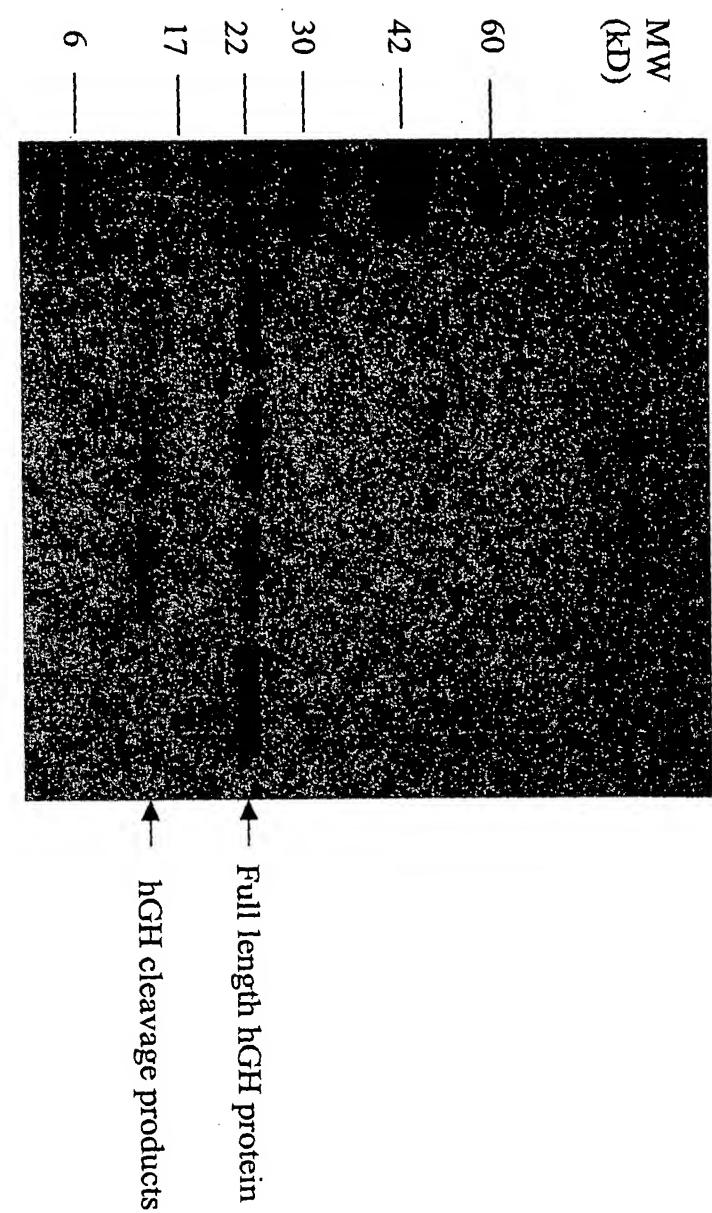


Figure 8.

Figure 9.

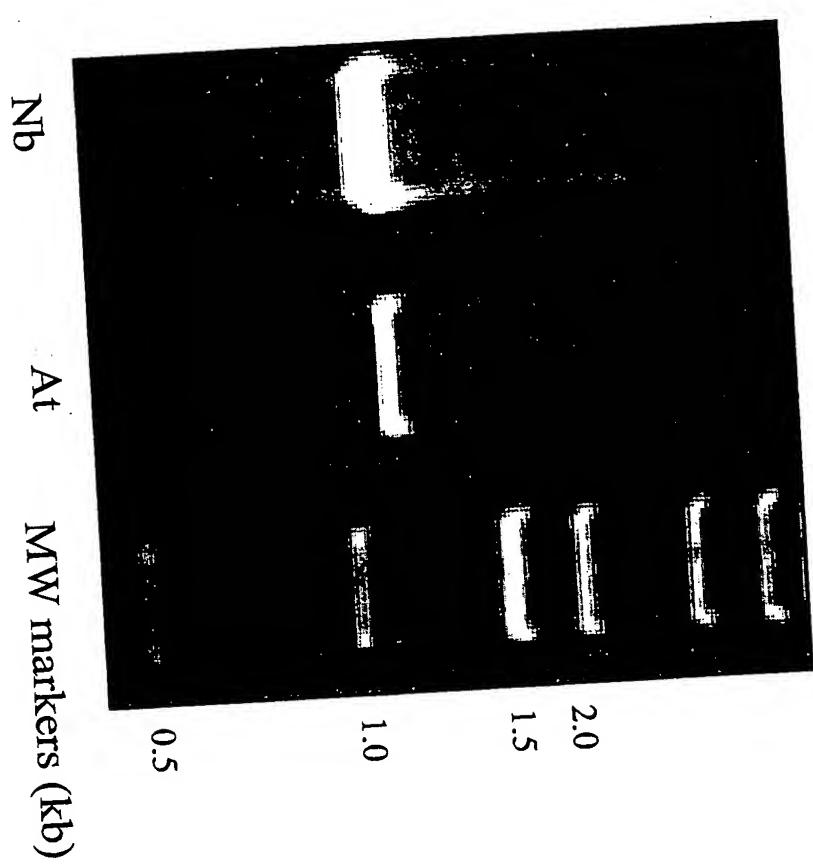


Figure 10

Seq ID 24	GVIIGVIDTGIFPDHPSFSDVGMSPPPAKWKGFCESNFTTKCENNKLIGLR	50
Seq ID 25	GVIIGVIDTGIVPDHPSFSDVGM p PPPAKWK G FCESNFTTKrNNKlIGaR	50
p69A (tomato)	GVIIGVIDTGILPDHPSFSDVGM p PPPAKWK G FCESNFTnKCNNKlIGaR	50
Consensus	gviigvidtg i pdhpsfsdvg m pppakw k cesnft k nnk ig r	
*		
Seq ID 24	SFRLSEDTPIDTDGHGTHTASTAAGAFVKGANFFGN ANG TAVGVAPLAHM	100
Seq ID 25	SFpLdng.PIDenGHGTHTASTAAGAFVKGANvFGN ANG TAVGVAPLAHi	99
p69A (tomato)	SyqLghgsPIDdDGHGHTHTASTAAGAFVnGANvFGN ANG AaGVAPfAHi	100
Consensus	s l pid ghg ht astaagafv gan fgn ang ta gvap ah	
*		
Seq ID 24	AIYKVC.SFATCSETDALAAMDAIIDGVDIISASLGGFTNAPLHDDPIS	149
Seq ID 25	AIYKVC g SdgvCSdveiLpAMDvAIDDGVDI l SiSLGGtsN.PfHnDkIa	148
p69A (tomato)	AvYKVCnSd.gCadTDvLAAMDAIIDGVDI l SiSLGGggssdfysnPIa	149
Consensus	a ykvc s c l amd aiddgvdi s slgg i	
*		
Seq ID 24	LGAYSATEKGILASASAGN SE .FDNPVANNAPWILTVGASTHDRKLKATV	198
Seq ID 25	LGAYSATErGILvScSAGNSgpFqrtVnNdAPWILTVGASTHDRKLKATV	198
p69A (tomato)	LGAYSATErGILvScSAGNngpstgsVgNeAPWILTVGASTqDRKLKATV	199
Consensus	lgaysate gil s sagn v n apwiltvgast drklkatv	
*		
Seq ID 24	KLGNKEEFEGESADQPKTS N STFIALFDAGKNASD...QDAPFCRSWAM	244
Seq ID 25	KLGNKEEFEGESAyhPKT s STFftLFdveK...DgtratrAPFC C ipgs l	245
p69A (tomato)	KLGNrEEFEGESAy r PKi S NSTFfALFDAGKNASD...efetPyCRSg s l	246
Consensus	k l gn eefegesa p k s stf lfd k d p c	
*		
Seq ID 24	TDPAIKGKIVLCKDPSSLTSSQGRNVKDAGGVGMILINNPEDGVTKSAT	294
Seq ID 25	TD P sIrGKIVvClvgggv r Tvd k GqvVKDAGGVGMILINNPEDGVTKSAe	295
p69A (tomato)	TD P vIrGKIViClagggvprvd k GqaVKDAGGVGMiI N qqrsGVTKSAd	296
Consensus	tdp i gkiv c g vkdaggvgmi in gvtksa	
*		
Seq ID 24	AHVLPALDVSHEEGEKIKAYINSTNPIAAITFQGT V IGDKNAPIVASFS	344
Seq ID 25	AHVLPALDV s dadG k KI l AYINSTN P vAAITFhGT V lGDKNAPIVASFS	345
p69A (tomato)	AHViPALDiSdadG t KI l AY m INSTN P vAtITFQGT i IGDKNAPIVAaFS	346
Consensus	ahv pald s g ki ay <u>nstsnp</u> a itf gt gdknapiva fs	
*		
Seq ID 24	ARGPSRANPGILKPD I IGPGVN I LA A WPTTVN I PNKNTNSGFNIISGTSM	394
Seq ID 25	sRGPS e AsrGILKPD I IGPGVN v LA A WPTsVdn.NKNTkStFNIISGTSM	394
p69A (tomato)	sRGPSgAsiGILKPD I IGPGVN I LA A WPTsVdd.NKNTkStFNIISGTSM	395
Consensus	rgps a gilkpdiigpgvn laawpt v nknt s fniisgtsm	
*		
Seq ID 24	SCPH	398
Seq ID 25	SCPH	395
p69A (tomato)	SCPH	399
Consensus	scph	

Figure 11

Seq_ID_40	.....	VIIGVIDTGIVPDHP.SFSDVGMPPP	26
Seq_ID_39	.....	VIIGVIDTGIVPDHP.SFSDVGMPPP	26
Seq_ID_25	.....	VIIGVIDTGIVPDHP.SFSDVGMPPP	26
P69D	fs1htthttpsflglqqnmgl.....wksnfvvgVIIGVIDTG1IPDHP.SFSDVGMPPP		164
P69A	lsldtthtssflglqqnmgv.....wksnygkgVIIGVIDTG1IPDHP.SFSDVGMPPP		164
P69C	ls1htthttpsflglqqnmgl.....wksnygkgVIIGVIDTGIVPDHP.S1SDVGMMPsP		164
P69B	ls1htthttpsflglqqnmgv.....wksnygkgVIIGVIDTG1IPDHP.SFSDVGMPPP		164
Seq_ID_24	.....	gVIIGVIDTG1IPDHP.SFSDVGMsPP	26
CUSSP	nelhttrswdfglfp1tvpr.....r.sqvesnivvGV1DTGIwPesk.SFDeGfsPP		158
Seq_ID_19	.....v.....	stqsaitagDdGisev	17
Seq_ID_18	vkidtthtssflglnsdsga.....wpksdygkdVIVG1wDTGIwPesk.SynDnGMtev		167
Seq_ID_20	vkidtthtssflglssmygs.....wpksnygkgVIIGVvDTGvPeik.SFdDdGMsqv		92
SBT4	vepdtttytfgylklnpsyg1.....wpasglgqdmIIGV1DsGIwPesafqfdD.GiPei		170
SBT3	vephththtsdf1klnpssgl.....wpasglgqdvIvaV1DsGIwPesafqfdD.GMPei		162
AG12	atldtthtpf1lslnptgg1.....wpasnygedVIIGVIDGsGvwpesdsfkDgmaqv		164
AIR3	lklhttrswdfglglehnsyvpsssiwrkarfgedtIIan1DTGvwpesk.SFDeGlgPi		171
Seq_ID_21	rhlhtthtpf1flgla..dsf...glwpnsdyaddVIVG1DTGIwPerP.SFSDeGlstv		153
Seq_ID_22	rhlhtthtpf1flgla..dsf...glwpnsdyaddVIVG1DTGIwPerP.SFSDeGlstv		157
Seq_ID_23	rqlhtthtpf1flgla..dsf...glwpnsdyaddVIVG1DTGIwPerP.SFSDgGlsav		159
MDC16.21	reihthtpaflgfs..qns...glwsnsnygedVIVG1DTGIwPeHP.SFSDsGlgPi		160
Seq_ID_27	yelhtrsrp1flglegresk...sfflqaetrseVIIGV1DTGvwpesk.SFdDtGlgPv		157
SBT1	yelhtrsrp1flglegresr...sfpqtearreseVIIGV1DTGvwpesk.SFdDtGlgqv		157
ARA12	yelhtrtpl1flgld.ehta...dlfppeagsysdVvvGV1DTGvwpesk.SySDeGfgPi		157
Seq_ID_26	.....		1
SBT2	yqlhttrspl1flgldredds...klwadrlsdhnVIVG1DTGIwPesk.SFnDsGMtsv		169
Seq_ID_28	.....		0
F22M8.3	ls1httysheflglefgig.....lwnetslssdVIIG1vDTGIIsPeH.vSFrdthMtPv		152
Seq_ID_29	.....		0
Consensus	lhTt flgl w s viigv Dtg1wpe p sf d g		180
Seq_ID_40	PAKWKGF CES...NFTTKC N N K L I G A R S F P L D N G	PIDENGHGTH	67
Seq_ID_39	PAKWKGF CES...NFTTKC N N K L I G A R S F P L D N G	PIDENGHGTH	67
Seq_ID_25	PAKWKGF CES...NFTTKC N N K L I G A R S F P L D N G	PIDENGHGTH	67
P69D	PAKWKGv CES...NFTTKC N N K L I G A R S y q L g N G s	PIDdNGHGTH	206
P69A	PAKWKGv CES...NFTnK C N N K L I G A R S y q L g h G s	PIDddGHGTH	206
P69C	PAKWKGv CES...NFTnK C N N K L I G A R S y q L a N G s	PIDddGHGTH	206
P69B	PAKWKGv CES...NFTnK C N N K L I G A R S y q L g N G s	PIDsiGHGTH	206
Seq_ID_24	PAKWKGF CES...NFTTKC N N K i I G l R S F r L s e d t	PIDtdGHGTH	68
CUSSP	PpWKGtCEt...snnfrCnRKiIGARSyhigrpispg.....dvngPrDtNGHGTH		207
Seq_ID_19	PsrWKGeCESgtfnsslCNkKLIGARYFnkgllannpn....lnismnssrDtdGHGTH		73
Seq_ID_18	PsrWKGeCESgtqfnsslCNkKLIGARYFnkgliannpn....itismnssrDtdGHGTH		223
Seq_ID_20	PsrWKGiCqgtqfnsslCNkKLIGARYFnkgllskvkn....ltiminsarDteGHGTH		148
SBT4	PkrWKGiCnpgtqfnTsmCnRKLIGAnyFnkgllaedpn....lnismnssrDtdGHGTH		226
SBT3	PkrWKGiCkpgtqfnasmCnRKLIGAnyFnkgilandpt....vnitmnsarDtdGHGTH		218
AG12	PARWKGiCsr.egfnssmCnRKLIGARYFnngimaaipn....atfsmnssarDtlGHGTH		219
AIR3	PsrWKGiCqn.qkdatfhnCnRKLIGARYFnkgyaavgh....lnssfdspRdldGHGhs		226
Seq_ID_21	PssWKGkCvtgpdfpeTsCNkKiIGAqmFykgyeakh.g.pmdeskssPrDteGHGtx		211
Seq_ID_22	PssWKGkCvtgpdfpeTsCNkKiIGAqmFykgyeakh.g.pmdeskssPrDteGHGTH		215
Seq_ID_23	PsgWKGkCEtgledfpaTsCnRKiIGAR1Fykgyeadr.gspideseskssPrDteGHGTH		218
MDC16.21	PstWKGeCEigpdfpassCnRKLIGARAyrgyltqrngtkhaakesrsPrDteGHGTH		220
Seq_ID_27	PmsWKGeCqigknfkassCnRKLIGARFFsqgyeaafga..idettesksPrDddGHGTH		215
SBT1	PAsWKGkCqgtknfdassCnRKLIGARFFsqgyeaafga..idettesksPrDdeGHGTH		215
ARA12	PssWKGgCEagtnftas1CnRKLIGARFFargyestmgp..ideskesrsPrDddGHGTH		215
Seq_ID_26	.....		1
SBT2	PshWKGvCEtgrgfehhCskKivGARvFfrgyeaasgk..inergefksarDqdGHGTH		227
Seq_ID_28	.....		0
F22M8.3	PsrWrGsCdegtnfssseCnRKiIGAsaFykgyesivgkin..ettdfrstrDaqGHGTH		210
Seq_ID_29	.....		0
Consensus	p wkg ce g f cn kligar f g	sprd gHgth	240

Seq_ID_40	TASTAAGAFVKGANVFGNANGTAVGVAPLAYIAIYKVCGSDGV...	CSDVEILAAMDVAI	124
Seq_ID_39	TASTAAGAFVKGANVFGNANGTAVGVAPLAYIAIYKVCGSDGV...	CSDVEILAAMDVAI	124
Seq_ID_25	TASTAAGAFVKGANVFGNANGTAVGVAPLAhIAIYKVCGSDGV...	CSDVEILpAMDVAI	124
P69D	TagTAAGAFVKGvNiFGNANGTAVGVAPLAhIAvYKVCsSDGg...	CSDsdILAAMDaAI	263
P69A	TASTAAGAFVnGANVFGNANGTAAGVApfAhIAvYKVCnSDG...	CaDtdvLAAMDaAI	262
P69C	TASTAAGAFVnGANVFGNANGTAVGVAPLAhIAIYKVCsSDG...	CSDsdILAAMDaAI	262
P69B	TASTAAGAFVKGANvGNAdGTAVGVAPLAhIAIYKVCnSvG...	CSesdvLAAMDsAI	262
Seq_ID_24	TASTAAGAFVKGANfFGNANGTAVGVAPLAhIAIYKVCsfat...	CSetdaLAAMDaAI	124
CUSSP	TASTAAGGglVsqANlyGlg1GTArGgvPLArIAaYKVCnDG...	CSDtdILAAYDdAI	263
Seq_ID_19	TsSTAAGsyeGAsyFGyArGAsAtGmAPkAhvAmYKalwe.eg...	vylsdvLAAiDqAI	129
Seq_ID_18	TsSTAAGshVesAsyFGyArGAsAtGmAPkAhvAmYKalwe.eg...	tmlsdvLAAiDqAI	279
Seq_ID_20	TsSTAAGs1VKGAsyFGyApGfAiGVAPmAhvAvYKalwdgag...	t.isdILAAlDqAI	204
SBT4	SASiAAGnFaKGvshFGyAqGTArGVAPqArIAvYKfsfr.eg...	sltsdliAAMDqAv	282
SBT3	CASitAGnFaKGvshFGyApGTArGVAPrArIAvYKfsfn.eg...	tftsdliAAMDqAv	274
AG12	TASTAAGnVnGAsyFGygkGTArGiAPrArvAvYKVtwp.eg...	rytsdvLAGiDqAI	275
AIR3	T1STAAGdFVpGvsiFGqgNGTAkGgsPrArvAaYKVCwppvkgneCyDadvLAAfDaAI		286
Seq_ID_21	TASTAAGs1VanAsfyqyAkGeArGmAikArIAaYKiCwknG...	CfnasdILAAMDqAv	267
Seq_ID_22	TASTAAGs1VanAsfyqyAk...GmAikArIAaYKiCwknG...	CfnasdILAAMDqAv	267
Seq_ID_23	TASTAAGsVVanAsfFqyAkGeArGmAvkArIAaYKiCwktG...	CfDsdILAAMDqAv	274
MDC16.21	TASTAAGsVVanAslyqyArGTAtGmAskArIAaYKiCwtgG...	CyDsdILAAMDqAv	276
Seq_ID_27	TATTAAGsVtGAs1FGyAaGTArGmAshArvAaYKVCwagG...	CfssdILAqMDqAv	271
SBT1	TATTAAGsVtGAs1lGyAtGTArGmAshArvAaYKVCwtgG...	CfssdILAqMDqAv	271
ARA12	TsSTAAGsVVeGAs1lGyAsGTArGmAPrArvAvYKVCwlgG...	CfssdILAAlDkAI	271
Seq_ID_26	.....	.....	1
SBT2	TAGTvAGsVrGAN1lGyAyGTArGmAPgArvAaYKVCwvgG...	CfssdILsAvDqAv	283
Seq_ID_28	.....	.....	0
F22M8.3	TASTAAGdiVpkANYFGqAkG1AsGmrftsriAaYKaCwalG...	CastdviAAiDrAI	266
Seq_ID_29	.....	.....	0
Consensus	tastaag v gas fgya gta g ap aria ykvcw g c sdilaam d ai		300
Seq_ID_40	DDGVDILSISLGG.TS.NPFHNDKIALGAYSATERGILVSCSAGNSGPQRTVDNDAPWI		182
Seq_ID_39	DDGVDILSISLGG.TS.NPFHNDKIALGAYSATERGILVSCSAGNSGPQRTVDNDAPWI		182
Seq_ID_25	DDGVDILSISLGG.TS.NPFHNDKIALGAYSATERGILVSCSAGNSGPQRTVnNDAPWI		182
P69D	DDGVDILSISLGG.st.kPFHdDgIALGtYSATERGifVsSaSAGNSGPslgTVaNeAPWI		321
P69A	DDGVDILSISLGG.ggssdFysnpIALGAYSATERGILVSCSAGNnGPstgsVgNeAPWI		321
P69C	DDGVDILSISLGG.sp.iPlyeDsIAmGAYSATERGILVSCSAGNndGhsmgsVDNsAPWI		320
P69B	DDGVDILSmSLsG_gp.iPFHrDnIAiGAYSATERGILVSCSAGNSGPsfiTavNtAPWI		320
Seq_ID_24	DDGVDII1SaSLGG.ftnaPlHdDpIsLgAYSATEkGILaSaSAGNS.eFdnpVaNnAPWI		182
CUSSP	adGVDII1S1SvGG.anprhyfvDaIAiGsfhAvERGILtSsSAGNgGPnffTtaslsPW1		322
Seq_ID_19	tDGVDvLs1SLG..idaiPlHeDpvAiaAfAlekGifVstSAGNeGPyyeTlhNgtPWv		187
Seq_ID_18	eDGVDII1S1SLG..iddalayeDpvAiatfaAmEkdifVstSAGNeGPddqalhNgtPWv		337
Seq_ID_20	adGcDILS1SfGa.vSpfPlyiDpIs1sfasfSAmEkGifVsvSAGNeGPfdqslsNeAPwf		263
SBT4	adGVDm1S1Sfs..nrifPlyeDa1siasfgAmmkGvLVsAAGNrGhswgTVgNgsPWI		340
SBT3	adGVDm1S1SfG.yrfiPlyeDa1siasfgAmmkGvLVsAAGNrGPgigslnNgsPWI		332
AG12	adGVDv1S1SLG..ydgvpolyeDpIAiiasfaAmEkGvrvVstSAGNaGPFFgnmhNgiPWv		333
AIR3	hDGA1v1SvSLGG.ep.tsFfNDsvAiGsfhAakkIrVvCSAGNSGPadsTVsNvAPWq		344
Seq_ID_21	DDGVhvi1SvGangyaphylyDsIAiGAfGAsEhgLVSCSAGNSGPgpayTavNiAPWm		327
Seq_ID_22	DDGVhvi1SvGangyaphylyDsIAiGAfGAsEhgLVSCSAGNSGPgpayTavNiAPWm		327
Seq_ID_23	adGVhvi1SvGadgyapeydaDsIAiGAfGAsEhgVvVSCSAGNSGPgasTavNvAPWI		334
MDC16.21	adGVhvi1SvGasgSapeyHtDsIAiGAfGAtRhGIVvSCSAGNSGPnpeTatNiAPWI		336
Seq_ID_27	idGVnv1Ls1SLG..gtisdyrDivAiGgfsAasqGifVSCSAGNgGPgsgs1sNaAPWI		329
SBT1	idGVnv1Ls1SLG..gtisdyrDivAiGafSAasqGifVSCSAGNgGPssgTlsNvAPWI		329
ARA12	aDnvn1Ls1SLG..ggmsdyyrDgvAiGAfaAmERGILVSCSAGNaGPsssslsNvAPWI		329
Seq_ID_26	.....	.....	1
SBT2	adGVn1Ls1SLG..ggvssynrDslsiaAfgAmEkGvfVSCSAGNgGPdpisltNvsPWI		341
Seq_ID_28	.....	.....	0
F22M8.3	1DGVDv1S1SLGG..SsrPFyvDpIAiagfgAmqknIfVSCSAGNSGPtasTVsNqAPWI		324
Seq_ID_29	.....	.....	0
Consensus	dgvd s slg d iaigaf a e gi vscsagn gp t n apwi		360

Seq_ID_40	LTVGASTHDKLKATVKLGKEEFEGE...	SAYHPKTSNSTFFTLFDVEKIVHEQPVAPF	239						
Seq_ID_39	LTVGASTHDKLKATVKLGKEEFEGE...	SAYHPKTSNSTFFTLFDVEKIVHEQPVAPF	239						
Seq_ID_25	LTVGASTHDKLKATVKLGKEEFEGE...	SAYHPKTSNSTFFTLFDVEKdgtratrAPF	239						
P69D	LTVGASTHDKLKVTVKLGNsEEFEGE...	SAYHPKTSNSTFFPlyDagKnesdQfsAPF	378						
P69A	LTVGASTqDRKLKATVKLGnEEFEGE...	SAYrPKiSNSTFFFaLFDagKnasdefetPy	378						
P69C	LTVGAST1DRK1KATVKLGnEEFEGE...	SAYrPqiSNSTFFLFDaaknasdefktPy	377						
P69B	LTVGAST1DRK1KATVKLGnEEFEGE...	SAYrPKiSNaTFFLFDaaknkdpssetPy	377						
Seq_ID_24	LTVGASTHDKLKATVKLGKEEFEGE...	SAdqPKTSNSTFialFDagKnasdQ.dAPF	238						
CUSSP	LsVaASTmDRKfvtqVqiGNqqsFqGv...	Sintfdnqyyp1vsgrDipntgfdkstsrf	379						
Seq_ID_19	LTVaAgTvDRefiGtltLGNgvs vpGl...	S1YpgnsSsSessivlyve.cqddke....	238						
Seq_ID_18	LTVaAgTvDRefiGtltLGNgvs vtGl...	S1YpgnsSsSessivflktcleke....	389						
Seq_ID_20	LsVaASTvDRDwiriltLGNgvs vtGl...	S1Ypgns.tSdisvilvkncldkqe....	314						
SBT4	LcVaAgftDRttagTltLGNg1kirGw...	S1fparafvrdPviynkltlsdcssdalls	397						
SBT3	LcVaasghtDRttagTltLGNg1kirGw...	S1fparafvrdspviynkltlsdcssseells	389						
AG12	LTVaAgniDRsfragTltLGNdqtitGw...	tmfpasaiiessqlvynktisacnstell	390						
AIR3	iTVGASTmDRefasnlvLGNgkhykGqsls	StalPhakfypimasvnaknasaldAql	404						
Seq_ID_21	LTVGASTiDRefpAdViLGdnriFgGvsl	ySg..npltdak1lpvysgdcg.....sky	379						
Seq_ID_22	LTVGASTiDRefpAdViLGdnriFgGvsl	ySg..npltdak1lpvysgdcg.....sky	379						
Seq_ID_23	LTVaASTiDRefpAdViLGdgrifGgGvsl	ySg..dplgdSk1lpvysgdcg.....sql	386						
MDC16.21	LTVGASTvDRefaAnaitGdgkvFtGtsly	ag..eslpdSqls1lpvysgdcg.....srl	388						
Seq_ID_27	tTVGAgTmDRefpAyisLGNgkkFsGvsl	ySg..kalpsSvmplyagnasqasn..gnl	385						
SBT1	tTVGAgTmDRefpAyigiGNgkklnGvsl	ySg..kalpsSvmplyagnvssqssn..gnl	385						
ARA12	tTVGAgT1DRdfpAlaiLGNgknFtGvsl	fkg..ealpdkl1lpfiyagnasnatn..gnl	385						
Seq_ID_26	.....	.....	1				
SBT2	tTVGASTmDRdfpATVeLGtgkivtG	aslykgrmn1stqkqypliylgssn1mP.ssl	400						
Seq_ID_28	.....	.....	0				
F22M8.3	mTVaASytDRtfpAiVriGNrkslvG	sslyk...S1kn1plafnrtagEesgAvF	378						
Seq_ID_29	.....	.....	0				
Consensus	ltvgast dr f atv lgng f g s s		420						
Seq_ID_40	CIPGSLTDP.....		248						
Seq_ID_39	CIPGSLTDP.....		248						
Seq_ID_25	CIPGSLTDPsirgkivvclvgggvrtvdkgqvvkdaggvgmili	npedgvtksaeahvl	299						
P69D	CsPGSLnDPaikgkivlclrsisllrv	aqgqsvkdaggvgmili	neqkrvgvtsaeahvl	438					
P69A	CrsGSLTDPvirgkivclaggvgprvdkgqavk	daggvgmii	ininqqrsqvtsadahvi	438					
P69C	CrPGSLTDPairgkivlclafggvtivdkgqavk	daggvgmii	inispddgvtksadahvl	437					
P69B	CrrGSLTDPairgkivlcsalghvanvdkgqavk	daggvgmii	inpsqygvtsadahvl	437					
Seq_ID_24	CrsSwamTDPaikgkivlclqkdpslts	sqgrnvkdaggvgmili	npedgvtksatahvl	298					
CUSSP	CtdkSvnpnllkgkivvceasfgp	heffksldg..aagv	lmtsn.....trdyadsypl	431					
Seq_ID_19	lqnahkfvvcldknd....svgehv	ynvrnskvagavfitn....t.tdl.e	efylqsef	288					
Seq_ID_18	leknahkfavcydtng....svsdqlynvkntkvaggifitn...	y.tdl.e	efylqsef	439					
Seq_ID_20	lqnvtdkfvvcidkna....lv	gkqvesvrhsnaagavfitnd..fvt	ndlge.ylktef	366					
SBT4	qfPdpqntiici	cdynkledgfgfdsqifhvtqarf	kagifise....dpavfrvasft.h	452					
SBT3	qvenpentivicddn..gd.fs.d.	qmriitrarlkaaifise....dp	gvfrsatfp.n	439					
AG12	davyS...vviceait....piyaqidait	rsnvagailisn....htkl	felggvsc	438					
AIR3	CklGSLdpiktkgkivl	clvclr.gqng	rvekgraval	ggggigmvl	entyvtgn	ndl1adphvl	463		
Seq_ID_21	CyPGkLdpkkvagkivl	cdr.ggnarvekgsavk	qaggvgmila	nladsgeel	vadsh11	438			
Seq_ID_22	CyPGkLdpkkvagkivl	cdr.ggnarvekgsavk	qaggvgmila	nladsgeel	vadsh11	438			
Seq_ID_23	CyPGmLdpkskvak	gkivl	cdr.ggnarvekgsavk	laggagm	vl	nladsgeel	vadsh11	445	
MDC16.21	CyPGkLnss1vegkivl	cdr.ggnarvekgsavk	lagger	gagmila	ntaesa	el	geltadsh1v	447	
Seq_ID_27	CtsGSLipekvdgkivv	cdr.gmnaraqkgl	vvk	daggigmila	ntd	sygdel	vadahli	444	
SBT1	CtsGSLipekvak	gkivvcdr.gmnaraqkgl	vvk	daggigmila	ntd	tygdel	vadahli	444	
ARA12	CmtGtLipekvgkivm	cdr.ginarvqkgdvv	kaaggvg	milanta	angeel	vadahll	444		
Seq_ID_26	1		
SBT2	CldGtLdkasvagkiv	cdr.gisprvqkgqv	keaggvg	milntnta	angeel	vadsh11	459		
Seq_ID_28	36		
F22M8.3	Cir	dGtLkrelvegkiv	clr.gasgrtak	geevkrsg	gaaml	vvst	eaee	lladphvl	437
Seq_ID_29	0		
Consensus	c g l	gkiv c g	v kg	vk aggvg	mil n	g ad h	l	480	

Seq_ID_40	.....S.....	249
Seq_ID_39	.....S.....	249
Seq_ID_25	paldvsdadgkkilayi.nstsnpvaaitfhgtvlgd.knapivasfssrgpseasrgil	357
P69D	paldvsnadgkkilaym.nsssnpvasitfhgtviqd.knapivasfssrgpsvaspgil	496
P69A	paldisdadgtkilaym.nstsnpvatitfqgtiigd.knapivaafssrgpsgasigil	496
P69C	paldvsdadgtkilaym.nstsnpvatiaf fqgtiigd.knapmvaafssrgpsraspgil	495
P69B	palvvsaadgtkilaym.nstsspvatiaf fqgtiigd.knapmvaafssrgpsraspgil	495
Seq_ID_24	paldvsheegekikayi.nstsnpiaaitfqgtviqd.knapivasfsargpsranpgil	356
CUSSP	pssvldpndllatlryi.yisirspgatifiksttiln..asapvvvsfssrgpnratkdv	488
Seq_ID_19	.....	288
Seq_ID_18	pavflnfedgdkvleyi.knshspkarlefqvthlga.kpapkvasyssrgpsescpf	497
Seq_ID_20	psvflnfqngdqvlkyv.nstsspkakiglqgtligv.erapavahfssrgpsmtcpf	424
SBT4	lgvvvidkkegkqvinyy.knsvsptatitfqetyvdrerpspfllgyssrgpsrsyagia	511
SBT3	pgvvvnkkekqkqvinyy.knsvtptatitfqetyldt.kpapvvaassargpsrsylg	497
AG12	pclvispkdaaalikya.ktdefplaglkfqetitgt.kpapavayyssrgpspsypg	496
AIR3	patqltskdsfavsrvi.sqtkkpiahitpsrtdlg.1kpapvmasfsskgpsivapq	521
Seq_ID_21	patmvqqkagdkirhyv.tsdpsptativfrgtvickspaaprvaaafssrgpnhltp	497
Seq_ID_22	patmvqqkagdkirhyv.tsdpsptativfrgtvickspaaprvaaafssrgpnhltp	497
Seq_ID_23	patmvqqkagdeirdyv.ksdsspkativfkgtvickspsapriaafssrgpnyvt	504
MDC16.21	patmvqgakaggdqirdyikt	506
Seq_ID_27	s.d. sptakisflgtligpsppspraafssrgpnhltpv	502
SBT1	ptgavqqttagxlixryi.asdsnpittiaf ggktlgvqp.spvvaafssrgpnpit	502
ARA12	ptaaavqqtagnlikqyv.asnsnptatiaf ggktlgvqp.spvvaafssrgpnpitd	502
Seq_ID_26	.....	1
SBT2	pavavgeregraiklya.agrsatatalrflgtklgirp.spvvaafssrgpnflsle	516
Seq_ID_28	paldvsffdqfqiteym.kstknvpvaritfqgtiigd.knapvlagfssrgpstasp	94
F22M8.3	pavslgfsdgkllnylag.aanatasvrfrgtay..atapmvaafssrgpsvagpeia	494
Seq_ID_29	.....	0
Consensus	pa v g i y s p a i f g t g ap va fssrgps p il	540
Seq_ID_40	.....	249
Seq_ID_39	.....	249
Seq_ID_25	kpdiiqpgvnvlaawptsvd....nnkntkstfniiisgtsmscp.....	397
P69D	kpdiiqpgvnvlaawptsvd....nnkntkstfnivisgtsmscp	551
P69A	kpdiiqpgvnilaawptsvd....dnkntkstfniiisgtsmscp	551
P69C	kpdiiqpgvnilaawptsvd....dnkdtkstfniiisgtsmscp	550
P69B	kpdiiqpgvnilaawptsvd....dnkntkstfniiisgtsmscp	550
Seq_ID_24	kpdiiqpgvnilaawpttvni....pnkntnsgfniisgtsmscp	398
CUSSP	kpdisqpgveilaawpsvavp....ggirrrntlfniisgtsmscp	544
Seq_ID_19	.....	288
Seq_ID_18	kpdimapgalilaswpqkspatqi.rsgelfsnfniisgtsmscp	556
Seq_ID_20	hagaagvaallkgahpk	481
SBT4	kpdimapghililaswspplssvspy..t.elhnifniisgtsmscp	570
SBT3	hagaagvaalvkgthpe	557
AG12	kpdilapgvililaayppnfvatsigtnillstdyilesgt	556
AIR3	smaaphaagiaamlkaahpe	556
Seq_ID_21	kpditapgvsviaaytgavsp	580
Seq_ID_22	tneqfdprr.1lfnaisgtsmscp	556
Seq_ID_23	hisisgtsmscp	556
MDC16.21	hisisgtsmscp	563
Seq_ID_27	hisisgtsmscp	565
SBT1	hisisgtsmscp	561
ARA12	hisisgtsmscp	561
Seq_ID_26	.....	1
SBT2	kpdmvapgvnilagwtgvgpssl.pidqrrtnfnilsgt	575
Seq_ID_28	smscp	149
F22M8.3	hvgsgiaaliksvhgd	553
Seq_ID_29	.....	0
Consensus	kpd apgvnila w v fniisgtsmscp	600

Seq_ID_40	.....	249
Seq_ID_39	.....	249
Seq_ID_25	.....	397
P69D	wspaaiksammattadtvnlanpilde.r...lisadlfamgaghvnpssrasdpglvdyt	607
P69A	wspaaiksammattadtlnlanpilde.r...llpadiyaigaghvnpssrandpglvdyt	607
P69C	wspaaiksaimttadtlnlanpilde.r...llpadifatgaghvnpssrandpglvdydi	606
P69B	wspaviksammattadtlnlanpilde.r...llpadiyaigaghvnpssrandpglvdyt	606
Seq_ID_24	.....	398
CUSSP	wspaaiksalmmtaspmn.....a.r...fnpqaeafaygsghvnplkavrpglvyda	592
Seq_ID_19	.....p.....	289
Seq_ID_18	wspaaairsammattadtmdnmqmpirdi.gr.nnnaasplamgagrinpknkaldpagliydi	614
Seq_ID_20	wspaaairsammattadvlndntqspiqdi.grpenaaatplamgaghinpnkaidpgliydt	540
SBT4	wspairsammattanhlnsaqdpite....dddmvasplgigsghvdpnraldpglvyda	626
SBT3	wspairsammattadpldntrkpkds...dnnkaatpldmagaghvdpnraldpglvyda	614
AG12	wspaaairsammattanpldnlnpihen.g.kkfhlasplamgaghidpnraldpglvyda	614
AIR3	wspaaairsaimttatimddipgpiqna.tn...mkatpfsfgaghvqpnlavnpglvydl	636
Seq_ID_21	wtpaavksalmmtaynlndnskgvftdl.a...tgqestpfvhgsghvdpnraldpagliydi	613
Seq_ID_22	wtpaavksalmmtaynlndnskgvftdl.a...tgqestpfvhgsghvdpnraldpagliydi	613
Seq_ID_23	wttaaiksalmmtaynvndnskgktftdl.a...tgqesspfvhgsghvdpnraldpglvydi	620
MDC16.21	wspaaiksalmvtaydvensgepiedl.a...tgkssnsfihgaghvdpnkalnpglvydi	622
Seq_ID_27	wsxgvirsalmmtgysthknxymiedv.a...tgmsytpvdhgaghvnpaaamnpglxydl	618
SBT1	wspaaairsalmmtsystyknktiedv.a...tgmsstpfydgaghvnpptaavspglvydl	618
ARA12	wspaaairsalmmtayktykdgkp1ldi.a...tgkpstpfdfhaghvpsptatnpgliydl	618
Seq_ID_26	.....asdgaghinprkavdpglvydi	23
SBT2	wspaaiksalmmtayvhdntykslkda.s...svtpstpydhgaghvnpkavdpagliydi	632
Seq_ID_28	wspaaiksaimttadtvnlanpilde.mlr...panifaigaghvnpssrandpglvdyt	205
F22M8.3	wspamiksaimttaritdnrnrpigdrgaagaesaatafafgagnvdptravdpglvydt	613
Seq_ID_29	.....aitaghvnpesaidpgliydt	21
Consensus	wspaaia sa mtta pi d gaghv p a dp glvyd	660
Seq_ID_40	.....	249
Seq_ID_39	.....	249
Seq_ID_25	.....	397
P69D	pfediyipylcglnyt...nrevgkv1qrkvnccsevkripegqlnypsfisirlg.s....	658
P69A	pfediyipylcglnyt...nrqvgndlqrkvnccsevksileaqlnypsfisiydlgs....	659
P69C	pfediyipylcglnyt...nrqvgndlqrrvnccsevkiileaqlnypsficitelgs....	658
P69B	pfediyipylcglkyt...dqqvgnliqrnvncsevksileaqlnypsfisifglgs....	658
Seq_ID_24	.....	398
CUSSP	nesdyvkflcgqgyn...tqavrritgdysactsgntgrvwldlnypsfglsvps....	644
Seq_ID_19	.....	289
Seq_ID_18	tsqdyinllcaldf...sqqikaitrresssayscsnss...ldlnypsfifyfnynssesd	668
Seq_ID_20	tpqdyinllcalnlt...seqiktitrress.ytcpnps...ldlnypsfiaiyfnvnseld	593
SBT4	tpqdyinllcalslnft...eeqfkfarssanyhncsn.psadlnypsfiafysysqegny	682
SBT3	tpqdyinllcalslnft...eeqfktaiarssas.hncsn.psadlnypsfialysi..egnf	667
AG12	tpqdyinllcsmnyn...kaqilairvrdsy..tcsndpssdlnypsfiafhns...tc	665
AIR3	gikdylnflcslgyn...asqisvfsgnnftcsspk.islvnlnypsitvpnlts....	687
Seq_ID_21	etsdyvnflcslgdydgddvavfardssrvn.cserslatpgdlnypsfsvvftge....	667
Seq_ID_22	etsdyvnflcsmaydgddvavfardssrvn.cserslatpgdlnypsfsvvftge....	667
Seq_ID_23	dtkdyvdfcaigydpkrispvkdtssvn.cseknlvspgdlnypsfsvvf.g....	672
MDC16.21	evkeyvaflcavgyefpgilvflgdptlydacetskrlrtagdlnypsfsvvf.a.....	675
Seq_ID_27	tvddyinflcaldy...spsmikviakrdiscxnnkdielltlithllpflwkrawgeha	675
SBT1	tvddyinflcaldy...spsmikviakrdiscdenkeyrvadlnypsfisipmetawgeha	675
ARA12	ttedylgflcalnyt..sp.qirsvrrnytcdpsksysvadlnypsfavnvndgv.g..a	672
Seq_ID_26	gaqdyfeflctqqqls...psqltvfgkfsnrtchhslanpgdlnypaisavfpedakvs.	79
SBT2	gaqdyfeflctqels...psqlmvfgkfsnrtchhslanpgdlnypaisavfpektcls.	688
Seq_ID_28	qfkdyisylcglkytdr...qmgssllqrrtscskvksipeaqlnypsfisislgan....	257
F22M8.3	stvdylnylcslnytserillfsqtnytcasnavvls..pgdlnypsfavnlvng....	666
Seq_ID_29	dtsdyinllcslnytekemklftnes...npcsgftgspldlnypslsvvmfrpd....	72
Consensus	dy lc l y c dlnypsf	720

Seq_ID_40	.....	249
Seq_ID_39	.....	249
Seq_ID_25	.....h.....	398
P69D	.....tpqtyrtvtnvgdakssykveiv.spkgvvvkvepsalnfstlnqkltqyqvift	712
P69A	.....tpqtyrtvtnvgdakssykveva.spealpskltr..anfssdqkltqyqvtf	711
P69C	.....rlfertli.....	666
P69B	.....tpqtyrtvtnvgdatssykveva.spegviaevepslnfselnqkltqyqvtf	712
Seq_ID_24	.....	398
CUSSP	...qtfnqyfnrtltsvapqastyramis.apqglitisvnpn...vlsfnngldrksftl	697
Seq_ID_19	.....	289
Seq_ID_18	...pkriqefqrtrtvnvgemssvytaklt.smgdykasvapdklvfkelyekqsyklrie	724
Seq_ID_20	...ptrvqefkrtvtnvgemgvseytaelt.ampgkvsppklnfvfkdkyekqsyklrie	649
SBT4	...pwleqkfrrtltnvgkggatykvkie.spknstisvspqtlvfkknknekqsytlir	738
SBT3	...tllcqkfrtrtvtnvgkgaatykaklk.apknstisvspqilvfkknknekqsytlir	723
AG12	...rrs vntfqrtrtvtnvgdgaatykatvt.apkdsrvivspqtlafgskyeqsyntii	721
AIR3	....skvtvtsrtvknvgrp.smytvkvn.npqgvyvavkptslnftkvgeqkfkvilv	740
Seq_ID_21	..sng.vvkykrvvnnvngkntdavyevkvnnapssvevnvspaklrvfseekqslsyeislk	724
Seq_ID_22	..sng.vvkykrvvnnvngkntdavyevkvnnapssvevnvspaklrvfseekqslsyeislk	724
Seq_ID_23	..sds.vvknkrvvknvngvgrntnavyevkinapgsvevkvtptklsfsekknkslsyeisfs	729
MDC16.21	..stgevvkykrvvknvngsnnvadavyevgvkspanveidvpskla fkskeksvleyevtfk	733
Seq_ID_27	nssaptvtrytrtltnvgnpatykasvss.emgevkiqvepqtltsrkkekktvtf	734
SBT1	dsstptvtrytrtltnvgnpatykasvss.etqdvkilvepqtltsrknekktvtf	734
ARA12	.....y.kytrtrtvtsvvgaggtysvkvts.ettgvkisvepavlnfkeanekekqsytvtf	724
Seq_ID_26	.....tltlhrtrtvnvgspisnyhvrvs.pfkgavvvkvepsrlnftskhgklsykvife	132
SBT2	.....mltlhrtrtvnvgspisnyhvrvs.afkgavvvkveperlnftsknqklsykvtf	741
Seq_ID_28	.....qgtytrtrtvnvgemssyrvkivs.pqnvsvvvkpsl1kftklnqkltvrtfs	310
F22M8.3	..anlktvrykrtrtvnvgspctceymvhve.epkgvkvrvepkvlkfqkarerlsytvtyd	723
Seq_ID_29	..ssvhvvkrtrtlthavskpevykvki lnl nsekvs lsispmelmfneslrkqrymvkfe	130
Consensus	rtvtnvg y p v p l f k y	780
Seq_ID_40	.....	249
Seq_ID_39	.....	249
Seq_ID_25	.....	398
P69D	kttnis.....ttsdvegflkw nsnrhsvrspiavrvsae.....	747
P69A	ktanss.....ntevieglkwtsn rhsvrspi allliq.....	745
P69C	.....	666
P69B	kttnss.....npevieglkwtsn rhsvrspiavvsa.....	745
Seq_ID_24	.....	398
CUSSP	tvrgsi.....kgfvvsaslvwsdgvhyvrspititslv.....	731
Seq_ID_19	.....	289
Seq_ID_18	gpllv.....diilfmvl.....	737
Seq_ID_20	cpqlmn.....df1vhgsls wvekggkyvvrspivatns.....	683
SBT4	yrgdfn.....sgqtgsitwvekngnrsvrspivl tttvd l wgaed.....	779
SBT3	yigdegg.....srnvgsitwveqngnhsvrspivtspievw.....	761
AG12	nfrdtk...rkdisfgalwanengkhmvrspivv splind.....	761
AIR3	kskgn.....vakgyvfgelvwsdkh rvrspivvk l.....	772
Seq_ID_21	skks.gdlqmvkgiesafg siewsdg i h n v r s p i a v r w r h y s d a a s m	770
Seq_ID_22	skks.gdlqmvkgiesafg siewsdg i h n v r s p i a v r w r h y s d a a s m	770
Seq_ID_23	sngsvg.lervkglesafg siewsdg i h s v r s p i a v h w l l h s a t e s q	775
MDC16.21	svvlgggvgspghe..fgsiewtdgehvvkspvavqwgqgs.vqsf.....	777
Seq_ID_27	a.ss.....kpsg tts.farlewsdgqhv vaspiafs w t.....	766
SBT1	a.ts.....kpsg tts.farlewsdgqhv vaspiafs w t.....	766
ARA12	vdss.....kpsgsns.fgsiewsdgk h v v g s p v a i s w t	757
Seq_ID_26	tkyr.....qkare..fgsllwkd gthkvrstivtw l a s i	166
SBT2	tv sr.....qkape..fgsliwkd gthkvrspiaitw l a s v	775
Seq_ID_28	tttn.....itnmevvhgylkwtsd khf v r s p i a v i l q e h e t p e d	350
F22M8.3	aeasrn.....sssssf g v l v w i c d k y n v r s p i a v t w e	756
Seq_ID_29	shifnss.rkiae q mafg s is w e s e k h n v r s p f a v m w v q q n f n n s r l y k i t	181
Consensus	g w g h v r s p i a	840

TMV-SeqID 3 (-)

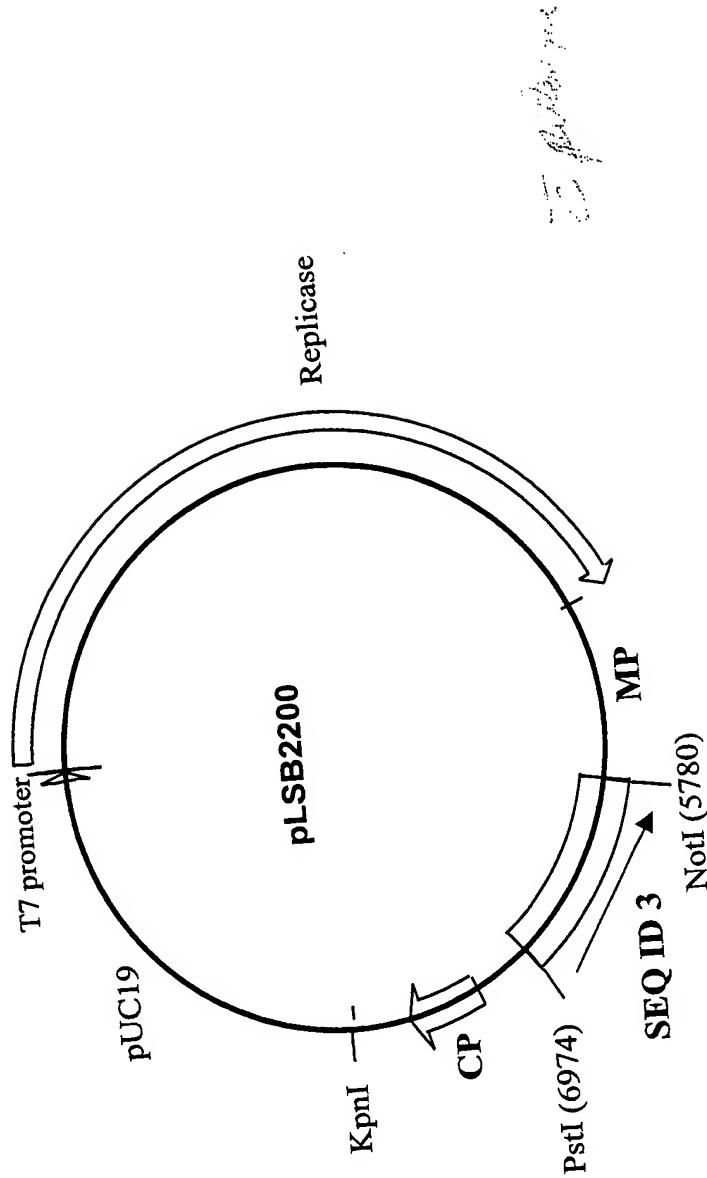


Figure 12A.

TMV-SeqID 3 (+)

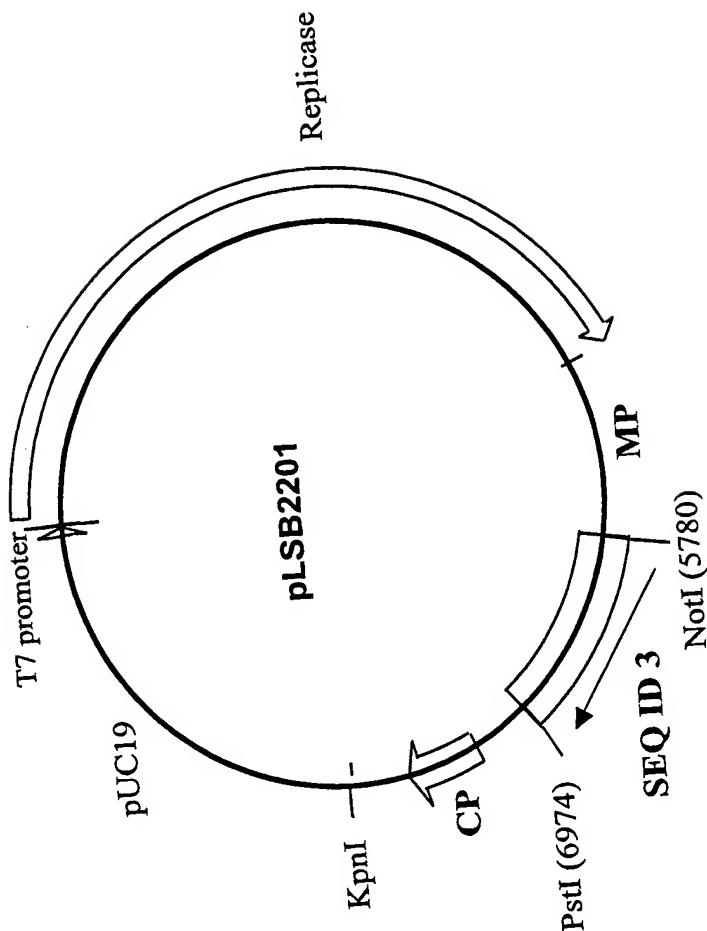


Figure 12B.

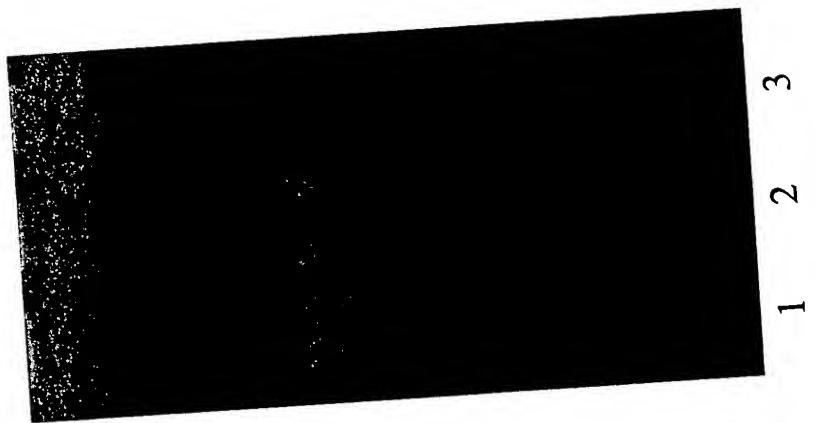


Figure 13.

TRV RNA-2 SeqID 3 (+/-)

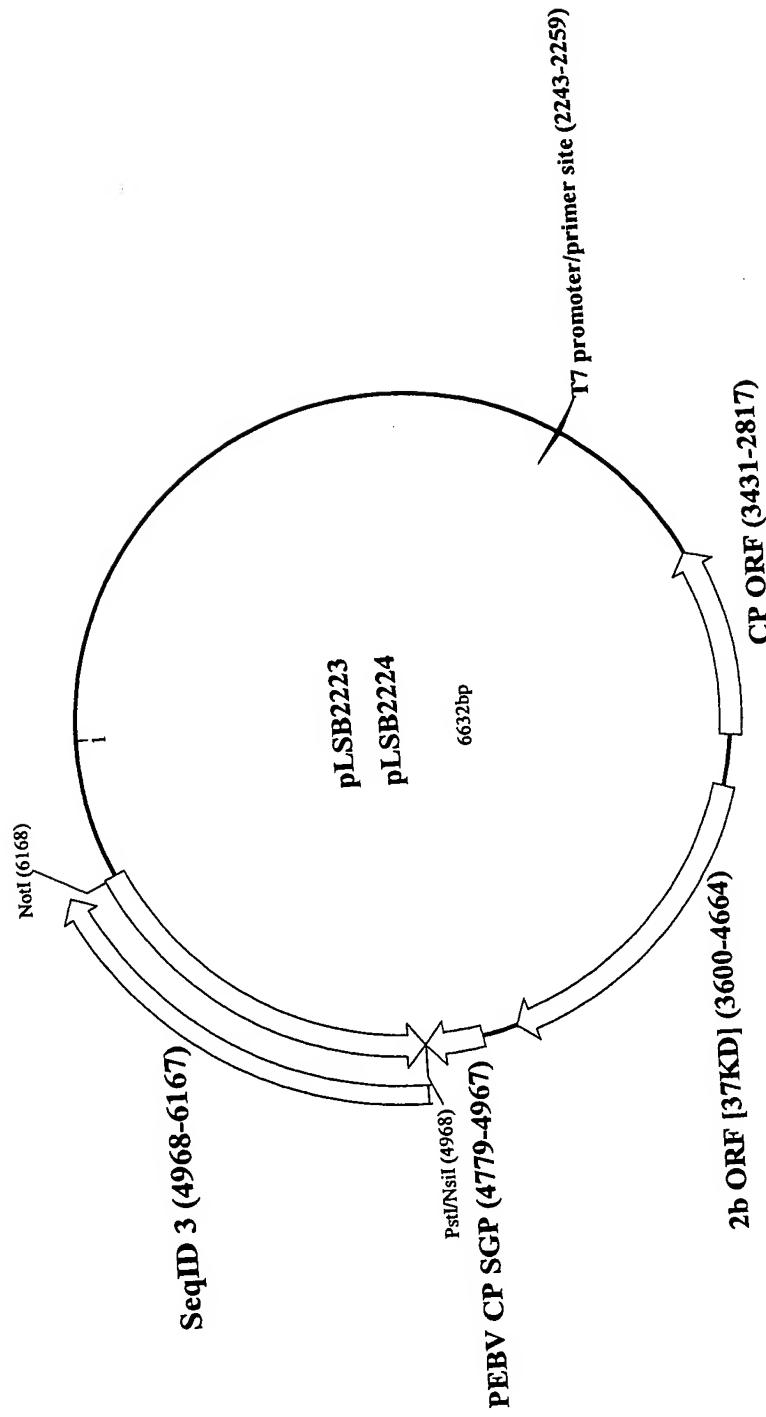


Figure 14.

Figure 15.

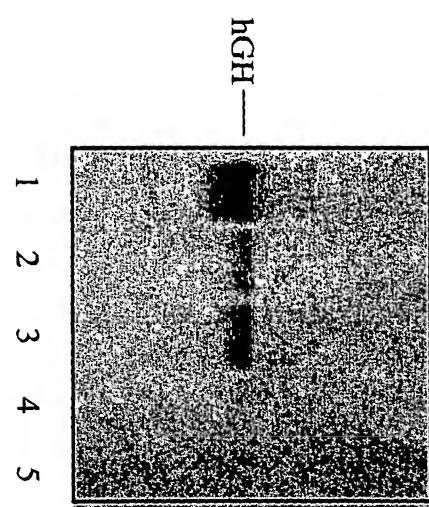


Figure 16A

Seq_ID_17	.....	0
Seq_ID_7	.....	0
Seq_ID_11	.....	0
Seq_ID_14	.....	0
Seq_ID_15	.....	0
Seq_ID_4	.....	0
Seq_ID_3	.....	0
Seq_ID_10	gctagcaccaacccctctaccaaaggaaactcttcccttcagtagagaact	60
Seq_ID_5	.....	0
Seq_ID_8	.....	0
Seq_ID_16	.....	0
Seq_ID_13	.....	0
Seq_ID_12	.....	0
Seq_ID_9	.....	0
Seq_ID_6	.....	0
Consensus		
Seq_ID_17	GGCCAATTGTATTACTATGTATTCTGCTCCTACTATCTTATTACTTACTCTAAATCC	60
Seq_ID_7	.....	0
Seq_ID_11	.....	0
Seq_ID_14	.....	0
Seq_ID_15	.....	0
Seq_ID_4	.....	0
Seq_ID_3	.....	0
Seq_ID_10	tcCattTTcTggTtacctGacacTgagaacCgcaAaaAgaTggcaAgaccCgggggcatg	120
Seq_ID_5	.....ccCacGCgtCcggtTtTtccATTctTTttcaTtAtTa.	37
Seq_ID_8	.....gtTtTtccATTctTTttcaTtAtTa.	25
Seq_ID_16	.....CacttTCtTcgtctTCTTcTTctTTctcCctctTaa	36
Seq_ID_13	.....	0
Seq_ID_12	.....	0
Seq_ID_9	.....	0
Seq_ID_6	.....	0
Consensus		
Seq_ID_17	ATTAACATGGCAGAGTCAGAAACTTATATCATCCATATGGACTTATCAGCCATGCCTAA	120
Seq_ID_7	.....	0
Seq_ID_11	.....	0
Seq_ID_14	.....	0
Seq_ID_15	.....G	1
Seq_ID_4	.....	0
Seq_ID_3	.....	0
Seq_ID_10	gTTcttTcaacactAtTCctAAtgTTgTtTCATgtgTtTGttCaTgcagGCCAgaaCcAg	180
Seq_ID_5	tcTcttTcTGcCtcAcTCCGgtgaccATtTCcgTCatgaaAacttTcA	97
Seq_ID_8	tcTcttTcTGcCtcAcTCCGgtgaccATtTCcgTCatgaaAacttTcA	85
Seq_ID_16	tcTcttTcTttCtcAactttAgTaATtTCAGtCcaATtGgacggTCAtaaAacttTcA	96
Seq_ID_13	.....	0
Seq_ID_12	.....	0
Seq_ID_9	.....	0
Seq_ID_6	.....	0
Consensus		

Seq_ID_17	AGCTTTCTAGCCATCAGAATTGGTACTTGACCCTCTGCTCTGTATCAGGTAGTT	180
Seq_ID_7	.....	0
Seq_ID_11	.....	0
Seq_ID_14	.....	0
Seq_ID_15	.....	1
Seq_ID_4	.....	0
Seq_ID_3	.....	0
Seq_ID_10	AaaaagactTAcatAattAcaTGGacaagtCaACatacctgtgaTtTtgatgAtcac	240
Seq_ID_5	tcaTTcacgTttCCAaatccgaTaagcCccGtgttTCaccaccCaccAcCAttgttact	157
Seq_ID_8	tcaTTcacgTttCCAaatccgaTaagcCccGtgttTCaccaccCaccAcCAttgttact	145
Seq_ID_16	tagTacacgTgtCCAaatcccaTaagcCccacatctTtactaccCgcccAaCAttgttact	156
Seq_ID_13	.....	0
Seq_ID_12	.....	0
Seq_ID_9	.....	0
Seq_ID_6	.....	0
Consensus		
Seq_ID_17	AAGTCTTGGAACTGAAAGTAATAGAAATTCTTCTCATCAAAACTA..GTATATGCT	238
Seq_ID_7	.....	0
Seq_ID_11	.....ACcc..cTcgAccna	13
Seq_ID_14	.....	0
Seq_ID_15	.....	1
Seq_ID_4	.....	0
Seq_ID_3	.....	0
Seq_ID_10	ActctgTGGtAtgactcaTctTtaAAgTcagTaTcCaaaggCgcccAacAtgcTtTAcaCc	300
Seq_ID_5	cctcCaTcatcCgatccGT.....ttcccaaCaCcctctAaaAtccTcTAcaCc	207
Seq_ID_8	cctcCaTcatcCgatccGT.....ttcccaaCaCcctctAaaAtccTcTAcaCc	195
Seq_ID_16	cctcCaTcctcCgatcAGtcttttct.TttcccaaCaCtctgccAaaAtccTtTAactCT	215
Seq_ID_13	.....	0
Seq_ID_12	.....	0
Seq_ID_9	.....	0
Seq_ID_6	.....	0
Consensus		
Seq_ID_17	TACACTAACGCTATTCATGGTTTAGTGCACACTCTTCCTCTGAGCTACAAGTTATA	298
Seq_ID_7	.....	0
Seq_ID_11	cgCgnncngC.CcAcgCgTccgcccAcgcgtcCgCTTCTCCTCAGtacaAAGccATc	72
Seq_ID_14	.....	0
Seq_ID_15	.....	1
Seq_ID_4	.....	0
Seq_ID_3	.....	0
Seq_ID_10	TACAacAAtGtcATcCATGGcTactcaaACagCTaaCagCTgaTGAagccaAAtcTcTt	360
Seq_ID_5	TAtgaacgtGCcgccgtGGcTTctcTGCAcgcCTcaCagCcgCTcAGgccgAtcagcTc	267
Seq_ID_8	TAtgaacgtGCcgccgtGGcTTctcTGCAcgcCTcaCagCcgCTcAGgccgAtcagcTc	255
Seq_ID_16	TACgaTtAtGCTgccCgtGGTTTctcTGCccgTCTcaCTtCccggcAGgctgAccggcTc	275
Seq_ID_13	.....	0
Seq_ID_12	.....	0
Seq_ID_9	.....	0
Seq_ID_6	.....	0
Consensus		

Seq_ID_17	AAAAATTCTCCAGGCTATCTTCTTCAACTAAGGACATGACAGTTAAAATTGACACGACA	358
Seq_ID_7	.....	0
Seq_ID_11	AAgAATTCTCtAGGgTATgTTTCTTCgAtggAGGACAgGACAGTTAAAATTcACACGACc	132
Seq_ID_14	.....	0
Seq_ID_15	.....	1
Seq_ID_4	.....	0
Seq_ID_3	.....	0
Seq_ID_10	gAAcAgcaaCCtGGaatTCTcTCggccaTgAGGAagTGAgtAtacgAgcTTcAtACcACT	420
Seq_ID_5	cgccgTatTCCcGGttaaTcTCcgctctTcccGACgaagtAcgccAtcTccACACcAcc	327
Seq_ID_8	cgccgTatTCCcGGttaaTcTCcgctctTcccGACgaagtAcgccAtcTccACACcAcc	315
Seq_ID_16	cgccgcatGCCtGGCgtggTcTCcgctgtacctGACcgtgCAcgTcAgtTcACACcACT	335
Seq_ID_13	.....	0
Seq_ID_12	.....	0
Seq_ID_9	.....	0
Seq_ID_6	.....	0
Consensus		
Seq_ID_17	CACACGTCTCAATTCTGGCTAAATTCCGATTCTGGTGCATGG..CCAAAGTCAGACT	416
Seq_ID_7	.....	0
Seq_ID_11	CAttCaTCcCAtTTCCCTGGCTAAgCTCaatgTaTGGTtCATGG..CCAAAGTCAAACT	190
Seq_ID_14	.....	0
Seq_ID_15	.....	1
Seq_ID_4	.....	0
Seq_ID_3	.....	0
Seq_ID_10	CgatCccCTacATTtCTgGGaCTTgAaggacgTgaaaGTaaATcattCttctTCAagCT	480
Seq_ID_5	CAtACccCTaccTTCTgGGaCTTgCTgCTgCTtcGGccttTGG..CCcAAcTCcGAtT	385
Seq_ID_8	CAtACccCTaccTTCTgGGaCTTgCTgCTgCTtcGGccttTGG..CCcAAcTCcGAtT	373
Seq_ID_16	CACACacCgaccTTCTaGGCCTcgacattcaTtTGGccttTGG..CCcAAcTCcGAtT	393
Seq_ID_13	.....	0
Seq_ID_12	.....ctCcgAtcgaaatcttaaGTctAatttgCCAAgtTtgctag	41
Seq_ID_9	.....	0
Seq_ID_6	.....	0
Consensus		
Seq_ID_17	ATGGCAAA....GATGTTATAGTTGGATTAGTTGACACA.GGGATTGGCCAGAGAGTAA	471
Seq_ID_7	.....t.GGtATcaacgCAGAGtGccA	21
Seq_ID_11	ATGGCAAA....GgTGTATcaTTGGtgTAGTTGAtACA.GGGgTTTGGCCAGAGAtTAA	245
Seq_ID_14	.....GgcGTgATtaTcGGAgTtaTaGACACT.GGaATTgttCCtGAccaTcc	47
Seq_ID_15	.....GgcGTgATtaTcGGAgTtaTaGACACT.GGaATTgttCCtGAccaTcc	48
Seq_ID_4	.....GgcGTgATtaTcGGAgTtaTaGACACT.GGaATTgttCCtGAccaTcc	47
Seq_ID_3	.....GgcGTgATtaTcGGAgTtaTaGACACT.GGaATTTtCCtGAccaTcc	47
Seq_ID_10	gaaaCAAgagtgAgGTcATtaTTGGtgTgcTggACACT.GGtgTTTGGCCtGAatcaaA	539
Seq_ID_5	AcGctgAt....GATGTCATcGTcGGAgTtcTggACACg.GGtATaTGGCCgGAaAGacc	440
Seq_ID_8	AcGctgAt....GATGTCATcGTcGGAgTtcTggACACg.GGtATaTGGCCgGAaAGacc	428
Seq_ID_16	AcGctgAt....GAcGTcATcGTcGGggTgcTcGACACg.GGcATTGGCCcGAaAGgcc	448
Seq_ID_13	.....	0
Seq_ID_12	AgccagAAatctctcaagtggccaGaAgcctTgagCgCgaGGtgcctGGCCttAatcagA	101
Seq_ID_9	.....	0
Seq_ID_6	.....	0
Consensus	g gt at t ggagt t gacac gg attt cc ga c	

Conserved Region A

Seq_ID_17	AAGCTAT.AATGATAATGGGATGACTGAAGTCCATCAAGATGGAAAGGAGAATGTGAAA	530
Seq_ID_7	ttaCggccggggGATgATGGGATtAgTGAAGTaaCCATCAAGATGGAAAGGAGAATGTGAAA	81
Seq_ID_11	AAGCTT.gATGATgATGGGATGAgccAAAGTCCATCAAGgTGGAAAGGAAatATGTcAAA	304
Seq_ID_14	ttcaTtT.AgcGAcgtTGGGATGcCTccctcgCCTgCtAaATGGAAAGGAtttTGTGAgT	106
Seq_ID_15	ttcaTtT.AgcGAcgtTGGGATGcCTccctcgCCTgCtAaATGGAAAGGAtttTGTGAgT	107
Seq_ID_4	ttcaTtT.AgcGAcgtTGGGATGcCTccctcgCCTgCtAaATGGAAAGGAtttTGTGAgT	106
Seq_ID_3	ttcaTtT.AgcGAcgtTGGGATGtCTcccccgCCTgCtAagTGGAAAGGAtttTGTGAgT	106
Seq_ID_10	AAGTtT.gATGAcAcTGGAcTaggTccAGTcCCTatgAGcTGGAAggGAgTGccAAA	598
Seq_ID_5	gAGtTtT.tccGAcgAgGGtctCtacgGTTCCtTCAAGtTGGAAAGGgaAgTGcGttA	499
Seq_ID_8	gAGtTtT.tccGAcgAgGGtctCtacgGTTCCtTCAAGtTGGAAAGGgaAgTGcGttA	487
Seq_ID_16	gAGCTtT.tccGAcggcGGGcTttCTGcAGTcCCTCCcgGtTGGAAAGGAAATGcGAAA	507
Seq_ID_13	.....	0
Seq_ID_12	AAGCTtT.AtTGATgAaGaaATGGgaccAaTTCCATCtAagTGGAgAGGgattTaccAAA	160
Seq_ID_9	.....	0
Seq_ID_6	.....	0
Consensus	ttt gacg tggg t ct c t cct c a tggaaagga tg ga a	

Conserved Region A

Seq_ID_17	GTGGAACCTCAATTAAATTCCCTTTATGCAACAAAGAAAATCATTGGTGC CGTTACTTCA	590
Seq_ID_7	GTGGtACTgAgTTcAATTCCCTTTTgTgtAACAAAGAAgCTCATTGGcGCtCGTTACTTCA	141
Seq_ID_11	CTGGcACTCAGTTAATTCTcTcATTgTGCAACAAAGAAAATCATTGGcGCtCGTTACTTCA	364
Seq_ID_14	CTaatttacgcaccAA.....gtGtAACAAcAAACTCATTGGaGCcaGgTctTTC.	156
Seq_ID_15	CTaatttacgcaccAA.....gtGtAACAAcAAACTCATTGGaGCcaGgTctTTC.	157
Seq_ID_4	CTaatttacgcaccAA.....gcGtAACAAcAAACTCATTGGaGCcaGgTctTTC.	156
Seq_ID_3	ccaatttacgcaccAA.....gtGtAAAtAACAAgATCATAAGGactcaGgTctTT.	156
Seq_ID_10	tTGGcAagaAcTTcAAagCaTCaagcTgtAACcgGAAACTCATTGGTGCaaGgTttTTCt	658
Seq_ID_5	CTGGAcCTgAtTTTccTgaaaCcTcATGtAAtAAAaaaTCATAggcGCTcaaatgTTt	559
Seq_ID_8	CTGGAcCTgAtTTTccTgaaaCcTcATGtAAtAAAaaaTCATAggcGCTcaaatgTTt	547
Seq_ID_16	CTGGgctggAcTTTccTgCaaCTTcATGtAACcgtaAAaTCATCggTGCtCGaTtgTTt	567
Seq_ID_13	.....	0
Seq_ID_12	aTaattCTgAtcacAcc...TtTTtagTGCAAaAgGAAgCTaATTGGaGCaaGgTACTTCA	217
Seq_ID_9	.....	0
Seq_ID_6	.....	0
Consensus	ct a aa tgtaacaa aaactcat gg gc g t ttc	
Seq_ID_17	ACAAAGG.....CCTAATTGCCAATA...ATCCGAATATTACCATCTCGATGAATTCA	641
Seq_ID_7	AtAAAGG.....CCTAcTTGCCAACA...ATCCaAATcTTAatATtTCaATGAATTCTt	192
Seq_ID_11	AtAAAGG.....aCTAcTTtCtAAag...tgaaaAAATCATTACCATCatGATAAATTCTG	415
Seq_ID_14	.....CcgcT...tgAc.....AATggtc	172
Seq_ID_15	.....CcgcT...tgAc.....AATggtc	173
Seq_ID_4	.....CcgcT...tgAc.....AATggtc	172
Seq_ID_3	.....CgAtTatCtgAa.....gATAcc	175
Seq_ID_10	cacAAGGttatgaagcAgcTttCggg...caattgATgagACCAcagaatccAAgTCAC	715
Seq_ID_5	ACAAAGGgtatgaagctAaacatgg...cccaatGgATgaatCaAaagaatcaAAaTCgc	616
Seq_ID_8	ACAAAGGgtatgaagctAaacatgg...cccaatGgATgaatCaAaagaatcaAAaTCgc	604
Seq_ID_16	ACAAAGGttacgaagctgatcggtggAgccaaattgAcgaatCtAaagaatctAAaTCgc	627
Seq_ID_13	.....	0
Seq_ID_12	ACgAAGGatacgtgactcTaGCaAgat.....cTcTcAattcaagttTctAcaCAC	268
Seq_ID_9	.....	0
Seq_ID_6	.....	0
Consensus	aagg c t tg aa cc	

Seq_ID_17	CTCGTGACACTGATGGGCATGGAACTCACACATCCTACAGCTGCAGGAAGTCATGTAG	701
Seq_ID_7	CTaGaGAtACcGATGGaCATGGAACTCACACtTctTCTACAGCTGCgGGAAGTtATGTtG	252
Seq_ID_11	CcCGTGATACaGAAGGGaCATGGAACTCAtACTTCTCTACAGCTGCtGGAAGTctTGTAA	475
Seq_ID_14	CcataGAtgaaaATGGaCATGGtACgCAtACAgCaagcACAGCTGCAGGAAGccttTGTga	232
Seq_ID_15	CcataGAtgaaaATGGaCATGGtACgCAtACAgCaagcACAGCTGCAGGAAGccttTGTga	233
Seq_ID_4	CcataGAtgaaaATGGaCATGGtACgCAtACAgCaagcACAGCTGCAGGAAGccttTGTga	232
Seq_ID_3	CgataGAtACTGATGGaCATGGtACaCACACTgCtagcACAGCTGCAGGAAGcTttTGTga	235
Seq_ID_10	CaaGgGACGtaTGATGGcCATGGgACaCACACTgCaaCTACAGCaGctGGctcggtTGTAA	775
Seq_ID_5	CaaGaGAtACTGAaGGaCATGGAACaCATACAgCaTCAACAGCaGctGGtctTtaGTgg	676
Seq_ID_8	CaaGaGAtACTGAaGGaCATGGAACaCATACAgCaTCAACAGCaGctGGtctTtaGTgg	664
Seq_ID_16	CaaGaGAtACTGAaGGaCATGGgACTCACACTgCtTCaActGCaGctGGAtcTgtTGTAG	687
Seq_ID_13	.....	0
Seq_ID_12	CaCGaGACACTGATGGaCATGtttCcCACACgcagTtcAagGaTcaAGtgttTCccGgta	328
Seq_ID_9	.....	0
Seq_ID_6	.....ggCCatTACGgCcGggcacgtgaATccctG	29
Consensus	c agagatac gatggacatgg ac ca ac gc acagctgc gga ct ttgt	

Conserved Region B

Seq_ID_17	AATCTGCATCTTATTTGGCTATGCCGTGGCTATGCTACAGGGATGGCACCAAAGGCTC	761
Seq_ID_7	AgggTGCATCTTATTTGGCTATGccaccGGTaCTGCTAttGGcAtaGCgCCAAAGGCTC	312
Seq_ID_11	AgggTGCgTCTTATTTGGCTATGccCCTGGTTtTGCaAtAGGcgTcGCACCAAtGGCTC	535
Seq_ID_14	AAggTGCTaaTgtATGGaaATGCcaaTGGaaCaGCagttGGtgTtGCcCcCtcttGCgt	292
Seq_ID_15	AAggTGCTaaTgtATGGaaATGCcaaTGGaaCaGCagttGGtgTtGCcCcCtcttGCgt	293
Seq_ID_4	AAggTGCTaaTgtATGGaaATGCcaaTGGaaCaGCagttGGtgTtGCcCcCtcttGCgt	292
Seq_ID_3	AAggTGCCaaTTtcTTTGtaATGCaaaTGGaaCaGCagttGGtgTtGCcCcCtcttGCcC	295
Seq_ID_10	cgggaGCTagcctcTTTGgtTATGctgcTGGcaCaGCacgtGGGATGGCtCAcAtGCaa	835
Seq_ID_5	cAaaTGCTagcTtTTaccaaTATGCaaaaGGT.....ATGGCtatAAAaGCaa	724
Seq_ID_8	cAaaTGCTagcTtTTaccaaTATGCaaaaGGTgaaGCTAgAGGtATGGCtatAAAaGCaa	724
Seq_ID_16	ctaacGCTagTTtTTTcaaTAcGCaaaaGGTgaaGCTAgAGGcATGGCtgcAAaGCTC	747
Seq_ID_13	.....	0
Seq_ID_12	tggaaa.....TGGaacaGCaaaGGTggatCacCAaaagTaagAgtAgcaGCTt	378
Seq_ID_9	.....cccaCgcgtCcgatGGTgCaG.gACAcatAaatCcaCgAAaagct	44
Seq_ID_6	AATCgGCTatTgATccggGCCTaaatacGacaCTG..AtAcatcaGaCtaCAtcaaCct	87
Consensus	aag tgcta t t ttgg atgcataatggt cagc gg t gc ca gc	

Conserved Region B

Seq_ID_17	ATGTGGCAATGTACAAGGCTTTGTGGGAAGAAG...GTACAATGTTATCTGATATTCTGG	818
Seq_ID_7	ATGTGGCtATGTACAAGGCTcTaTGGGAAGAAG...GTgtAtacTTgTCTGATgtTCTtG	369
Seq_ID_11	ATGTGGCtGTGTACAAGGCTcTcTGGGAtGggG...ccggtaaccTtTCTGATATTCTtG	592
Seq_ID_14	AcaTaGCcAtaTATAGGtaTgcgtGttctGAtGgcgtTtgcgtatgtTGAAATTtTaG	352
Seq_ID_15	AcaTaGCcAtaTATAGGtaTgcgtGttctGAtGgcgtTtgcgtatgtTGAAATTtTaG	353
Seq_ID_4	AcaTaGCcAtaTATAGGtaTgcgtGttctGAtGgcgtTtgcgtatgtTGAAATTtTaG	352
Seq_ID_3	AcaTGGCcAtaTATAGGtaTgcaGttttGcta...cTtgcgtatgtTGAAATTtTaG	352
Seq_ID_10	gaGTGGCtgcataAAAGttaTgtTGGGctGgAG...GatgttTtagcagcGAcAtaCTaG	892
Seq_ID_5	gaaTaGCcgtTACAAGatTTgcTGGaaAaAtG...GctgttTtaatTCTGATATAtTGG	781
Seq_ID_8	gaaTaGCcgtTACAAGatTTgcTGGaaAaAtG...GctgttTtaatTCTGATATAtTGG	781
Seq_ID_16	gaaTaGCAGctTAAAGatcTgtTGGaaAaAcAG...GgtgttTtgcgtatgtTGAAATTtTaG	804
Seq_ID_13	.....	0
Seq_ID_12	AcagaGtttgcTggcctcCaaTtGggtG...GgtgttTtgcgtatgtTGAAATTtTaG	435
Seq_ID_9	gTtgcacCctgGTttgggttaTgacataggGgcGcagGattAcTtcgAatTccTATgCaca	104
Seq_ID_6	ActatGCAGctTgaActaCacaGaGaaAgaAAAtgaaactttcacgAaCgagTcaaaTcc	147
Consensus	a atagc ta aaggatag gg ga g g tgg t at ctgatatttt g	

Conserved Region B

Seq_ID_17	CTGCAATTGATCAGGCAATTGAGGATGGAGT..GGATATAATATCCTTATCATTAGGCAT	876
Seq_ID_7	CTGCAATTGATCAaGCAATTacaGATGGtGT..GGATgTctTATCCTTgTCgTTAGGCAT	427
Seq_ID_11	CTGCATgGATCAGGCAATTGcGGATGGtgg..tgATATctTATCCTTgTCATTtGGCgc	650
Seq_ID_14	CTGCgATgGATgtaGCtATTGatGATGGcGT..agATATtcTATCaaTATCccTtGGtgg	410
Seq_ID_15	CTGCgATgGATgtaGCtATTGatGATGGcGT..agATATtcTATCaaTATCccTtGGtgg	411
Seq_ID_4	CTGCgATgGATgtaGCtATTGatGATGGcGT..agATATtcTATCaaTATCccTtGGtgg	410
Seq_ID_3	CTGCcATgGATgcaGCtATAgATGATGGtGT..agATATcATTCCgcATCtcTAGGCgg	410
Seq_ID_10	CaGggATgGATCAGGCcgTcataGATGGtGT..aaATgTAcTcTCacTgTCCtGGtgg	950
Seq_ID_5	CTGCcATgGATCAaGCtggTGAatGATGGtGT..GcATgTgATcTCacTtTCTgTtGGggc	839
Seq_ID_8	CTGCcATgGATCAaGCtggTGAatGATGGtGT..GcATgTgATcTCacTtTCTgTtGGggc	839
Seq_ID_16	CTGCAATgGATCAaGCtggTGAatGATGGAGT..tcAcgTgATTCTcTtCCgTtGGCgc	862
Seq_ID_13	.....	0
Seq_ID_12	tTGCTtTTGATttGGtAATTGAatGATGGcGT..GGAcgTgcTtTCagTcTCACtTtGGagg	493
Seq_ID_9	CaaCAAAcTcAgCccttcAcaGctaAcaGttTttGGAAAGttctcCaacAgaAcTtGcCAT	164
Seq_ID_6	tTGCTcggGtTtactgtaTctccActtgaTcttaActatccATCACtTtTCTgTttagtT	207
Consensus	ctgc atggatc agc attgatgatgg gt gat t t tca t tc ttgg g	
Seq_ID_17	AGATGATC...TTGCTTTATATG.....AGGATCCGGTAGCTATTGCCACATTTGCA	925
Seq_ID_7	AGAcGcga...TTcCactACAcG.....AaGATCCtGTgGCaATTGCCgCATTGCT	476
Seq_ID_11	AGtTtcTCcatTccCTctATATA.....taGATCCtaTctCTATTGcttCATTTtCT	702
Seq_ID_14	AacTagTaa...TcCgTTccATA.....AtGAcAAaGaTtGCTcTTGggggCgTaTagt	459
Seq_ID_15	AacTagTaa...TcCgTTccATA.....AtGAcAAaGaTtGCTcTTGggggCgTaTagt	460
Seq_ID_4	AacTagTaa...TcCgTTccATA.....AtGAcAAaGaTtGCTcTTGggggCgTaTagt	459
Seq_ID_3	AttTacTaacgcTcCaTTAcATG.....AtGAcCCtaTttCTcTTGgCgCgTacaagt	462
Seq_ID_10	cacaatTtc...TGAATTatTAcA.....gGGATataGTAGCaATTGgaggATTtTCT	999
Seq_ID_5	taAcGgTtatgcTcCacatTATctgt.....AtGATtCtaTtGcAATTGgagCtTTTGGt	894
Seq_ID_8	taAcGgTtatgcTcCacatTATctgt.....AtGATtCtaTtGcAATTGgagCtTTTGGt	894
Seq_ID_16	tGAcGgTtatgcacCggaATATGatg.....cGGATtCtaTTGCTATTGgagCtTTTGGt	917
Seq_ID_13	.....	0
Seq_ID_12	AGATAcTg.....gagcATATGtca.....AtGActCtGTAGCTATTGgttCATTTcat	542
Seq_ID_9	cacTcgctt.gcTaaTccAgggGact.....tGaActaccccGccATTtCtgCAGTTtt	218
Seq_ID_6	caggccTgattcctCTgTtcATGttgttaagAGGAcattaacaCatgTcgCggTTctaA	267
Consensus	aa t t a tcc t at a ga ctat gctattgg gc ttt t	
Seq_ID_17	GCAATGGAGAAAGATATATTGTTCCACTTCAGCTGGAAATGAAGGGCCTGACGATCAG	985
Seq_ID_7	GCAatTGGAGAAAGgTATATTGTTCCAccTCTGCaGGAAATGAAGGGCCTtAttATgAG	536
Seq_ID_11	GCAATGGAGAAAGgcATATTGTTCCgtTTCAGCTGGAAATGAAGGGCCTtCGATCAa	762
Seq_ID_14	GCAAAcaGAAAGAGgTATTcTTGTTtagttgTTCTGCaGGcAATtagtGGtCCattCcAaCgc	519
Seq_ID_15	GCAAAcaGAAAGAGgTATTcTTGTTtagttgTTCTGCaGGcAATtagtGGtCCattCcAaCgc	520
Seq_ID_4	GCAAAcaGAAAGAGgTATTcTTGTTtagttgTTCTGCaGGcAATtagtGGtCCattCcAaCgc	519
Seq_ID_3	GCAAAcaGAAAAAGgTATTcTnGcTagtgCcTCTGCaGGcAATtagtGAGa..gtttGATAAc	519
Seq_ID_10	GCAgcttctcAAGgaATcTTCGTCGtgcTCgGCTGGgAATGgcGGGCaGgCtcTgga	1059
Seq_ID_5	GCAAtcGAacAtGgcgTccTcGtCtCatgTTCAgCTGGAAATtctGGtCCcGgaGcTtAt	954
Seq_ID_8	GCAAtcGAacAtGgcgTccTcGtCtCatgTTCAgCTGGAAATtctGGtCCcGgaGcTtAt	954
Seq_ID_16	GCttcaGAacAtGgcgTtgTTGtcTCTtgcTCTGCTGGAAActccGGtCCcGgtGcTtcc	977
Seq_ID_13	.....	0
Seq_ID_12	GttgTtaAGCAcGgcATtgTTGtcgttAccTCtGCTGGtAActcgtctggcCccggtaAc	602
Seq_ID_9	cCtgaAGA.cgcAAAGtTTcaacgcTgacgcTtCacagAAcagtacCaatgtGgggttc	277
Seq_ID_6	GCctgaGgtgtAcAaAgtaaaGaTaCtgaaaTCtGaaattctgaaAAGGtttagttAgtAt	327
Consensus	gca c ga aagg att ttgtt ct tctgc gg aat gg cc t at a	

Seq_ID_17	GCTTTGCACAACGGAACACCTTGGTTCTAACTGTTGCTGCTGGCACAGTTGATCGCGAA	1045
Seq_ID_7	acTTTGCACAAatGGAACACCTTGGGtgtAACTGTTGCaGCTGGCACAGTTGAcCGCGAA	596
Seq_ID_11	tCTTTGagCAAtGaggCACCTTGGtTTCTctCTGTTGCTGctaGCACAGTTGATCGgGAc	822
Seq_ID_14	actgTagACAAatGacgCccCTTGGaTTCTcACaGTTGgcGCTaGCACtcaTGATaGaaAA	579
Seq_ID_15	actgTagACAAatGacgCccCTTGGaTTCTcACaGTTGgcGCTaGCACtcaTGATaGaaAA	580
Seq_ID_4	actgTaaACAAatGacgCccCTTGGaTTCTcACaGTTGgcGCTaGCACtcaTGATaGaaAA	579
Seq_ID_3	cCTgTagcaAAatGacgCccCTTGGaTTCTcACaGTTGgcGCTaGCACcctaTGATaGaaAA	579
Seq_ID_10	tCccTctcAACGctgCACCaTGGaTaactACTGTAggTGCggGGgACCaTgGAcCGCGAA	1119
Seq_ID_5	aCggcagtgAACattgCcCCgTGGaTgCTcACTGTTGgTGCatcaACtaTaGATCGtGAG	1014
Seq_ID_8	aCggcagtgAACattgCcCCgTGGaTgCTcACTGTTGgTGCatcaACtaTaGATCGtGAG	1014
Seq_ID_16	aCgcGgtAACGttgCgCCgTGGaTTCTcACcGTTGCTGCTcaACgaTaGAcCGgGAG	1037
Seq_ID_13	.....	0
Seq_ID_12	aaTacGaAAA.attgCACCTTGGcTcaTAACtGTTGgcGCgaGaACtaTgGATtGtcAg	661
Seq_ID_9	tCcaatataAAattAcAtgTTaGagTCTcgCcGTTcaaaggGCAAGtcgTGAagGttgA	337
Seq_ID_6	aagcccaAtggaGctgatgtTcaatgaaTcttTaagGaaaCaaaggAtaTGgTCa..AA	385
Consensus	act t caa g gc cttggattctcaactgttgg gct gcac ttgatcg aa	
Seq_ID_17	TTTATCGGGACACTAACGTTGTTATGGAGTTTCAGTCAGTCAGTGGTTATCTCTCTACC..	1103
Seq_ID_7	TTTATTGGaACAtTAAActCTtGGaAATGGAGTTTCAGTCAGTCAGTGGTTATCTCTCTACC..	654
Seq_ID_11	gTTATCaGGAtAtTAAActCTtGGTAATGGAGTTTCAGTCAGTCAGTGGTTATCTCTCTACC..	880
Seq_ID_14	cTaAagGccACTgTtAagCTtGGaAATaaAGaagaAtTtgaAGGagaATCTGctTAtCat	639
Seq_ID_15	cTaAagGccACTgTtAagCTtGGaAATaaAGaagaAtTtgaAGGagaATCTGctTAtCat	640
Seq_ID_4	cTaAagGccACTgTtAagCTtGGaAATaaAGaagaAtTtgaAGGagaATCTGctTAtCat	639
Seq_ID_3	cTaAaaGccACcgTtAagCTtGGaAATaaAGaagaAtTtgaAGGagaATCTGctgAtCag	639
Seq_ID_10	TTcccaGcatataTtAGCCTtGGaAATGGAaaaaaaAtTCAGtGGagTATCaCTtTACagt	1179
Seq_ID_5	TTcccgGcagatgTtAtTtTaGGAGAtaatagaatAtTtggTGGTgTtTCatTgTACtcc	1074
Seq_ID_8	TTcccgGcagatgTtAtTtTaGGAGAtaatagaatAtTtggTGGTgTtTCatTgTACtcc	1074
Seq_ID_16	TTTccgGctgatgTtAtTtTaGGAGATGGcagaatAtTCggTGGcgTATCcCTgTAttcc	1097
Seq_ID_13	.....	0
Seq_ID_12	TTTccCaGctataTcAtTtTaGGaAAcAAaggatgAAat..TgaAaCaCTgccCaaa	720
Seq_ID_9	gccATCaaGAttgaAttTCaccagcAaacAccagaAactAtcttacaAggTgatTttCga	397
Seq_ID_6	TTTgagaGccatCatAtatTcaacAgcaCcaggaaAaTagCTGagcaAatggcgTtttgt	445
Consensus	tt a gc a tgtta tct gggaaaata a a aatt g tgg g atc t ta c	
Seq_ID_17	.CCGGGAATTCCAGTTCAAGCAGAACGCTCCATCGTTTTCTCAAGAC....ATGCCTAGA	1158
Seq_ID_7	.CtGGGAATTCTAGTTCAAGCAGAACGCTCCtTgTcTaTgTCgA.....ATGCCaAGA	706
Seq_ID_11	.CtGGGAATTCTA...CAAGCGAtAttCTcgTtaTTcTTgTCAAGAA....tTGCTTAGA	932
Seq_ID_14	cCaaaGAcTTCaAacTCAAAttcttCaCtcTatTTgaTgTtgAaAa...gATagtacac	696
Seq_ID_15	cCaaaGAcTTCaAacTCAAAttcttCaCtcTatTTgaTgTtgAaAa...gATagtacac	697
Seq_ID_4	cCaaaGAcTTCaAAGcTCAAAttcttCaCtcTatTTgaTgTtgAaAa..gATGgtacac	697
Seq_ID_3	cCaaaGAcTTCAAcTCAAAttcttCtgCtcTatTTgaTgTtgAaAa..gAatgCaAGt	696
Seq_ID_10	ggaaaaagcaTtaccTgatctGtgAtgcCacTgTgTgTaTgctggAA....ATGCCagcc	1234
Seq_ID_5	ggCaaatccTTtgAccgatgcCaAAttgcCggTgGTTTaTtcCggcgac..tgTGgtacA	1132
Seq_ID_8	ggCaaatccTTtgAccgatgcCaAAttgcCggTgGTTTaTtcCggcgac..tgTGgtacA	1132
Seq_ID_16	ggCGatccgctCgGggattcaaAgctacCtcTtGTTTactcCggtgac..tgcGggagtc	1155
Seq_ID_13	.....	0
Seq_ID_12	tgCatGttCttCccTattAtaaAtggtgCttcaGcaaaaggctcccatgcttcaaCTgac	780
Seq_ID_9	gaCaaaAtatCgtcaaaAGCacgtGaaattggatcccTgctttGgaaa.gATGggacac	456
Seq_ID_6	tCgatatacTTggagagtgaaaAgcaCaatgTtaggagcCcCtttgcgttATGtgggtt	505
Consensus	c aagacttc a aac a t ct t tt atgc g a atgg a	

Seq_ID_17	GGAGAAGGAACTGGAGAAAAATGCACA..CAAATTGCAGTCTGCTATGACAC.....	1209
Seq_ID_7	tGAcAAGGAACTGcAGAAAAATGCACA..CAAATTtGttGTCTGtctcGACAA.....	757
Seq_ID_11	taAGcAGGAAtTGcAaAAtgtTaCAgA..CAAATTtGtGtGTCatTGACAA.....	983
Seq_ID_14	GagcAAccAgtaGccccttcTGCAcAc..CAggatCacCtcaCTGacccttCt.....	747
Seq_ID_15	GagcAAccAgtaGccccttcTGCAcAc..CAggatCacCtcaCTGacccttCt.....	748
Seq_ID_4	GagcAAccAg.aGccccttcTGCAcAc..CAggatCacCtcaCTGacccttCtataaggg	755
Seq_ID_3	GatcAAGatg...ctccAttcTGtAgAt.CgtgggCGatGaCTGaTcctgCtataagg	752
Seq_ID_10	aagcAtcaAA.TGGcaAtttATGCACA....AgTgGtAGTCTGatTtccAgAaaaagt	1288
Seq_ID_5	aatactGttAtccagGAAAGcTagAtcc.tAAAaaaGtcGcagGaaAaattgttt....	1186
Seq_ID_8	aatactGttAtccagGAAAGcTagAtcc.tAAAaaaGtcGcagGaaAaattgttt....	1186
Seq_ID_16	aactctGttAtccagGAAtgcTGgAtcc.ttcAaagGtAGcCgGaaAaattgtat....	1209
Seq_ID_13	.....	0
Seq_ID_12	GatGctcttttatGcaAAgctgGggCAt.tggAccCaaAGaagGtaAaGgtAacta...	835
Seq_ID_9	acAAAGtGAGaaGcAcAAttgTGatCAC..atggcTaGCAtcaattTAgttCAGcttg...	512
Seq_ID_6	cagcAAaattcaataAcAgtaGattAtaCAAAaTaaCttaaTatgtacAttgttgtatc	565
Consensus	a aa a t g aat tg a a ca a t g g ctga c	
Seq_ID_17	.....GAACGGATCAGTAAGTGACCAATTGTACAAT.G	1241
Seq_ID_7	.....GAAtGatTCgGTtgGTGAGCATgtGTACAAT.G	789
Seq_ID_11	.....aAACGcATTgGTcgGgaAaCAAgtTtgcAaAgT.G	1015
Seq_ID_14	.....	747
Seq_ID_15	.....	748
Seq_ID_4	aaagatagttgtgtgcctgggtggCGttcgtaacggTGAtaaAAGgacAagtT.G	814
Seq_ID_3	taagatagttgtgtcaaaaagacccaAgtaGtctcaccAGTagtCAAAGgacgaAAT.G	811
Seq_ID_10	atggaaaattgttagtatgtgacagaggGtGAtGAATgcaaggGcacagAAGgGTttggTtG	1348
Seq_ID_5	.....tatgcgatagggGAggcaAcgtctaggGTtgcAAAGGAGtgccG	1231
Seq_ID_8	.....tatgcgatagggGAggcaAcgtctaggGTtgcAAAGGAGtgccG	1231
Seq_ID_16	.....tatgtgatcgagGccgcaAtgttagAGTagagAAagGaAgtgcaG	1254
Seq_ID_13	.....gAcagAAATgcaAAAGGacaAgctG	25
Seq_ID_12	.....tttagttgtctaagagGAgataATacGaggGTtgaCAAAGGAGacagcaaG	886
Seq_ID_9	.....ccattttagtaacttagcatttGttTgctgAgGatAatAAAacatgtTtG	562
Seq_ID_6	tgttgtatcgtaatcgatcttagcctccGAgtagTactatgtGTattAcgtacCtcTaG	625
Consensus	ga t c ggt a aa gg t g	
Seq_ID_17	TAAAAAAACACAAAAGTTGCTGGTGGCATCTTCATAACAAATTAC.....ACTGACTTGG	1295
Seq_ID_7	TAAGAAAttCAAAAGTTGCTGGGCGctgTCTTtATAACTAAAtaca.....ACTGACTTGG	843
Seq_ID_11	TgAgAcAttCAAAtGcTGCTGGTGctgTCTTCATAACAAATgACtttgtcACTGACTTGG	1075
Seq_ID_14	.....	747
Seq_ID_15	.....	748
Seq_ID_4	TAAAAGgtCtggAGgTGtTGGcatgATtcTtATCAtAAACcagaagatggTGttacta	874
Seq_ID_3	TAAAAGgtCtggAGgcGtTGGcatgATtcTCATCAtAAACcgaagatggTGtCacta	871
Seq_ID_10	TcAAAGgtCtggGgaataGGgatgATTGgcAAAcAcagACtcttacggGAAtgaGt	1408
Seq_ID_5	TgAAAGcAggCAggcGgaGtaGGgatgATacTtgcAatTTggctgactccggcGAagAAC	1291
Seq_ID_8	TgAAAGcAggCAggcGgaGtaGGgatgATacTtgcAatTTggctgactccggcGAagAAC	1291
Seq_ID_16	TgAAAttagCcgccGgTGCaGGTatggTCCTggcgAatTTtagctgactccggcGAagAAC	1314
Seq_ID_13	TAAAAGAACGgtCtggAGgcGtTGGcatgATtcTCATCAtcggctcaggacggTtcaacta	85
Seq_ID_12	ctgctttggCAGgtGcaGtTGGaacGATtcTagccAacgATTAtgcacTctggcGAtgaaa	946
Seq_ID_9	cggcAAAGtCctgtgTttTcagcagtTgTTttcAgtAgAaaAtagttttTtgtTcat	622
Seq_ID_6	c.....CtCtgAgtaTGTactatGttgtatCATCgtAccTctagcctccgagtAtgTac	679
Consensus	t aa a gc gg gg gttgg a gat t aa cgga	

Seq_ID_17	AATTCTACCTCCAAAGC..GAATTCCCGCTGTGTTTGAACTTGAAGATGGTGATAA	1353
Seq_ID_7	AATTCTACCTCCAAAGC..GAATTCCCG.....	869
Seq_ID_11	gcgaaTACCTCaAAAc..GAATTCCCatCTGTGTTcTGAATTccAAaATGGTGATcA	1133
Seq_ID_14	.....	747
Seq_ID_15	.....	748
Seq_ID_4	AATcagctgaagctcat..GtccTtCCaGCatTGgaTgTttcagaTGcAGATGGaaAgAA	932
Seq_ID_3	AATcagctactgctcat..GtccTtCcCGCatTagaTgTttcacaTGAAGAAggAA	929
Seq_ID_10	tggTtgctgatgcncat..ctcaTaCCaaCaGgtgcagTtggtaaaactGcTGGTGAnnt	1466
Seq_ID_5	tgcTCgcCgattcAcat..cttcTCCCggcgcacGaTggTcggtaaaAGcTGGaGAcAA	1349
Seq_ID_8	tgcTCgcCgattcAcat..cttcTCCCggcgcacGaTggTcggtaaaAGcTGGaGAcAA	1349
Seq_ID_16	tgcTCgcCgattcAcat..cttcTaCCGGCgcacaaTggTcggtaaaAGccGGTGAcgA	1372
Seq_ID_13	AATcagcCgtatgcctcat..GtccTtCCGGCccTggatTTtttGATGGattTcA	143
Seq_ID_12	ttTTTgtcttctctCtcGtcTTaCCTGCTacGaaaaTtAgtTacaactGATGGactTgA	1006
Seq_ID_9	tAcTagctacttAtAt..GccaaattattTGTGgcagctA.CTaaaAtGATGaaattTgg	679
Seq_ID_6	tAcgtTgtatcacgtacCctctAgcCtCtGagtatgTactatgtTgTatcaAcGtaccTct	739
Consensus	t gc t c cat gt t cc gc g gt a gatgga a a	
Seq_ID_17	AGTTTTGGAGTACATCAAGAATAGCCATTCAACCAAAAGCAAGGCTTGAATTCAAGTGAC	1413
Seq_ID_7	.....	869
Seq_ID_11	AGTTTTGAAaTAtgTtAAcAgcActtcTTCACCAAAAGCAAaGaTTGgActTCAGgGAC	1193
Seq_ID_14	.....	747
Seq_ID_15	.....	748
Seq_ID_4	AaTTcTtGccTACATaAAActcaAcgtcgaatCCTgttGCTgcaatCaccTTcCATGgAAC	992
Seq_ID_3	AaTTaaGGccTATATAAAttcaActtcaaattCCTattGCTgcaatTAcATTCAGGgAAC	989
Seq_ID_10	gaTcnaaaggGTACATTgttcTgaCagTaaatCCAAttaCcAcaaTTGcATTGggAGgtAC	1526
Seq_ID_5	AaTaagacAcTACgTaAcGtcTgatCcTTCACCCAcgGcgAcGaTcGtgTTcagAGgAAC	1409
Seq_ID_8	AaTaagacAcTACgTaAcGtcTgatCcTTCACCCAcgGcgAcGaTcGtgTTcagAGgAAC	1409
Seq_ID_16	AaTaagGGAtTACgTCAAatcTgattcaTCACCAAAAGCgAcGaTTGttTTcaAAAGgAAC	1432
Seq_ID_13	AaTTactGAGTAtATgAAatcaAcaaAgaatCCTgttGCTGaaTTacATTcCAAGgAAC	203
Seq_ID_12	AcT.....CtTtAgttcaAcaagTatACCTAcAGCttccatTAcAcaTCcAacGAC	1057
Seq_ID_9	caaTagGagccAaAaaAAaAaaaggGcgCcg.....	716
Seq_ID_6	AGccTccGAGTAtgTagtatgTAtatcaTtg..tAtctttAGGccTcAaaaaaAaaaaAa	797
Consensus	aat ta t a tc a cc a gc a att tt agg ac	
Seq_ID_17	ACATCTTGGTGCTAAA...CCAGCACCAAAAGTTGCTAGCTATAGCTCAAGGGGACCATC	1470
Seq_ID_7	.....	869
Seq_ID_11	ACtaaTTGGTGtcgAA...CgAGCACCAgctGTCGCgcattTAGtTCgAGGGGgCCATC	1250
Seq_ID_14	.....	747
Seq_ID_15	.....	748
Seq_ID_4	tgtatTTGGaaTaAAA...aatGCtCCtAtAGTTGCTtcaTtTtctTCtcGAGGACCAag	1049
Seq_ID_3	AgtaaTaGGaaTaAAA...aatGCtCCtAtGTTGCTtcaTtTtctGtcGAGGACCAag	1046
Seq_ID_10	caAgtTgGGcGtccAA...CCAtCACCGgtcGTCGCAGctTtTAGtTCcAGaGGgCCAAA	1583
Seq_ID_5	AgtgaTcGGaaaatcAccggCAGCACCAcgtGTaGCggcgTtctcgagccGAGGACCTaa	1469
Seq_ID_8	AgtgaTcGGaaaatcAccggCAGCACCAcgtGTaGCggcgTtctcgagccGAGGACCTaa	1469
Seq_ID_16	tgtaaTcGGaaaatcAccgtCtGTCCTCACgtTTGCTgcgtTtctcgaggccGAGGACCAA	1492
Seq_ID_13	gataaaTaGGcGaTaAAA...aatGCtCCAGtgcTTGCTgGtTtTcaTCtcGcGGACCAag	260
Seq_ID_12	t.taaTTGGaaacAAA..gCCAGCtCCAGtcaTaGCAGCCTTcaTCAtaGGACCTaa	1114
Seq_ID_9	.....	716
Seq_ID_6	AaaaaaaaAAA.....	813
Consensus	t at gg a aa gc cc t gc tt g ggacc a	

Seq_ID_17	AGAAAGCTGCCCTTTATCCTCAACCTGACCTGATGGCTCCTGGAGCCTTAATATTAGC	1530
Seq_ID_7	.....	869
Seq_ID_11	AatgAcCTGCCGTTATCCTCAACCTGACCTGATGGCTCcGGtcaCTTAATAcTAGC	1310
Seq_ID_14	.....A.....	748
Seq_ID_15	.....	748
Seq_ID_4	cGAAgcaaGtCgTggcATCtTgAAACCTGAtaTtATtGgTCCTGGtGttaatgTccTtGC	1109
Seq_ID_3	ccgAgcaaaCCCTggcATCtTaAAACCTGAtaTtATtGgTCCTGGtGttaatATccTtGC	1106
Seq_ID_10	cccAATCacaCCggagATCCTtAAACCaGAttTGAtaGCaCCaGGtGtCaatATtcTtGC	1643
Seq_ID_5	tcAtttgacgCCggagATTCTtAAACCGGAtgTtATtGCaCCTGGAGGtttaacATTtTTGtGC	1529
Seq_ID_8	tcAtttgacgCCggagATTCTtAAACCGGAtgTtATtGCaCCTGGAGGtttaacATTtTTGtGC	1529
Seq_ID_16	ttAtgttaacaCCggagATCCTtAAACCGGAtgTtActGCaCCaGGAGtCaacATATTAGC	1552
Seq_ID_13	cacAgctaGtCCTggaATCtTgAAACCTGAtaTtATtGgTCCTGGtGttaatgTccTAGC	320
Seq_ID_12	cactgttacaCtggagATCCTtAAAggtT..ttacgcaGgTtCatGAtttTTtgacacgaC	1172
Seq_ID_9	.....	716
Seq_ID_6	.....	813
Consensus	a cc g atc t aaacc gat t at g cc gg gt t t gc	
Seq_ID_17	CTCATGGCCTCAAAAATCACCGGCAACTCAAATCGCTCAGGAGAGCTTTCAGTAACCT	1590
Seq_ID_7	.....	869
Seq_ID_11	tTCATGGtCTCcActATCAtCtGtAgTCcAtaT.....actGAACTTcaCAaTAtCTT	1364
Seq_ID_14	.....	748
Seq_ID_15	.....	748
Seq_ID_4	tgCtTGGCCTacccAgtAgataac...aAcAaa.....aAcacaaaatccAcatt	1157
Seq_ID_3	tgCtTGGCCTaccAccgtgaatatccCcaAcAaa.....aAcacaaaattcTggatt	1157
Seq_ID_10	tggcTGGaCaggAAAAGttggacCAACagggtTgCcagaAGacaccaggaaatgtgggTT	1703
Seq_ID_5	CgggTGGaCgggAtctgtggacCgACcgAttTggatattGacacGagaagagtagAATT	1589
Seq_ID_8	CgggTGGaCgggAtctgtggacCgACcgAttTggatattGacacGagaagagtagAATT	1589
Seq_ID_16	CgggTGGaCggggtccatAggacCAACagAttTggaaattGataccagacagactggAATT	1612
Seq_ID_13	agCtTGGCCTacttctgtcgaa..AAC.....aaaaCcaacacccaaaTcaAc...ATT	368
Seq_ID_12	aTCtTttCtTgAAAAGATCAGggaaacgacatctTTtctTgAaagatcaggaaCtt.gAagT	1231
Seq_ID_9	.....	716
Seq_ID_6	.....	813
Consensus	tgg c a a tt	
Seq_ID_17	CAACATCATATCAGGTACGTCAATGTCATGCCCTCATGCAGCTGGTGTAGCAGCACTTCT	1650
Seq_ID_7	.....	869
Seq_ID_11	tAACATtATATCtGGcACaTCcATGTCATGtCcACGCTGCcGGTGTAGCtGCACTTgT	1424
Seq_ID_14	.....	748
Seq_ID_15	.....	748
Seq_ID_4	CAAtATCATATCAGGcACaTCAAATGTCTTGCCCTCA.....	1193
Seq_ID_3	CAAtATCATATCAGGcACaTCAAATGTCTTGCCCTCA.....	1193
Seq_ID_10	CAACATCATCtCtGGaACtTCcATGTCATGtCncCATGtAagTGGgtTtGCAGCAnTact	1763
Seq_ID_5	CAAtATTATtTCtGGaACtTCcATGTCgTGCCCTCAcGttGggGGatTgGctGcttTact	1649
Seq_ID_8	CAAtATTATtTCtGGaACtTCcATGTCgTGCCCTCAcGttGggGGatTgGctGcttTact	1649
Seq_ID_16	CAACATTATATCtGGTACaTCcATGTCtTgtCCTCATGttagcGGgtTACGtGcttTact	1672
Seq_ID_13	CAACATaATTTCcGGTACcTCtATGTCATGtCCTCAccttagcGGaGTtGCAGCAtTgtT	428
Seq_ID_12	CtgaAgaAgcTatGcTtgaagAATaTgcgGagCaagTtgAagcacaATatgtttTgtT	1291
Seq_ID_9	.....	716
Seq_ID_6	.....	813
Consensus	caa at at tc gg ac tc atgtc tg cc ca t t t	

Seq_ID_17	GAAAGGAGCACACCCCAAATGGAGTCCTGCTGCCATCCGGTCGGCCATGATGACCACAGC	1710
Seq_ID_7	.....	869
Seq_ID_11	tAAAGGgaCcCACCCtgAATGGAGcCCaGCTGCCATCGtTCGGCCATGATGACTACAGC	1484
Seq_ID_14	.....	748
Seq_ID_15	.....	748
Seq_ID_4	.....	1193
Seq_ID_3	.....	1193
Seq_ID_10	GnAAGccGCcAtCCagATGGAGTtnaGggGtnAtaaGGTCaGCacTGATGACTACAGg	1823
Seq_ID_5	tAgAaGgGCcCACCCaAAGTGGAccCCaGCaGCggTaaaGTCaGCacTtATGACaACAGC	1709
Seq_ID_8	tAgAaGgGCcCACCCaAAGTGGAccCCaGCaGCggTaaaGTCaGCacTtATGACaACAGC	1709
Seq_ID_16	tAgAaaAGCttACCCtAAATGGAccaCaGCaGCCATCaaaTCTGCCcTcATGACaACAGC	1732
Seq_ID_13	aAAAaGcGCgCACCCtActTGGtccCTGCaGCtATtaaaTCaGCaATcATGACaACcGC	488
Seq_ID_12	ctgttagtagCAGtttAAAGatttTgtcatTtgtAcatcGTgtatagTtcTaAtgtCtGt	1351
Seq_ID_9	.....	716
Seq_ID_6	.....	813
Consensus	a	t t t a c g
Seq_ID_17	CGACACGATGGATAACATGCAAATGCCCATCCGAGACATAGGTGCG...AACATAATGC	1767
Seq_ID_7	.....	869
Seq_ID_11	gGAtgttcTaGAcAACAcAAAGtCCgATCCaAGACATcGGTCGtccagAgAAATgcTGC	1544
Seq_ID_14	.....	748
Seq_ID_15	.....	748
Seq_ID_4	.....	1193
Seq_ID_3	.....	1193
Seq_ID_10	ttACAGcAcacAcAAgAatggnnaaatgATagaggAt...GTtGCcacAggAATgtcat	1879
Seq_ID_5	ttACAactTGGAcAAAttctggtaaagtatTtacAGAtcTtGccactggccAagA.....	1763
Seq_ID_8	ttACAactTGGAcAAAttctggtaaagtatTtacAGAtcTtGccactggccAagA.....	1763
Seq_ID_16	ttACAacgTtGATAACtccggcAaaaCtTtacAGAtcTcGccacaggccAggA.....	1786
Seq_ID_13	tGAtACagTcaAcctCgccaAcAatCCCATTAGAtgaAatgtCtCcgctctg.....	541
Seq_ID_12	tttA....GGAGttgATAAAATgtgtcatGcaAttTgctTaGgtatAtttATtgaca	1407
Seq_ID_9	.....	716
Seq_ID_6	.....	813
Consensus	a	a
Seq_ID_17	TGCCAGTCCCCTAGCCATGGGAGCTGGCCGTATCAATCCAAAATAAGGCACTAGACCCTGG	1827
Seq_ID_7	.....	869
Seq_ID_11	TGCTAcTCCtCTtGctATGGGAGCTGGCCaTATCAATCCtAAcAAGGCAaTAGAtCCTGG	1604
Seq_ID_14	.....	748
Seq_ID_15	.....	748
Seq_ID_4	.....	1193
Seq_ID_3	.....	1193
Seq_ID_10	a..tAcaCCAGTtGatcatGGcGCTGGaCaTgTgAATCCAGcagcaGCtAtGtaAtCCTGG	1937
Seq_ID_5	atCtAcTCCtCTtGttcatGGAtCaGGtCaTgTagAcCCgAACcgaGCAtTgGAtCCggG	1823
Seq_ID_8	atCtAcTCCtCTtGttcatGGAtCaGGtCaTgTagAcCCgAACcgaGCAtTgGAtCCggG	1823
Seq_ID_16	atCgAGTCCgtTtGttcacGGgtCgGGtCaTgTggATCCgAACAgA/GCAGTAGAtCCAGG	1846
Seq_ID_13	..CaAacatCtTtGCCATtGGtGCaGGaCaTgTCAATCCAtcacgaGCAaatGAtCCAGG	599
Seq_ID_12	TtgtgaTCCttcgGtttTttataaaTGaaCaatgaAATttgtggAaaaAaaAaaaaaaa	1467
Seq_ID_9	.....	716
Seq_ID_6	.....	813
Consensus	g	g c a a

Seq_ID_17	ACTTATCTATGACATTACATCACAGGACTATATCAATCTCCTCTGTGCTCTAGATTTAC	1887
Seq_ID_7	.....	869
Seq_ID_11	ACTcATCTATGAtAcaACAcCACAAgAtTAcATTAACTtCTtTGTGCTCTAAATcTcAC	1664
Seq_ID_14	.....	748
Seq_ID_15	.....	748
Seq_ID_4	.....	1193
Seq_ID_3	.....	1193
Seq_ID_10	gtTagnqTATGAtcTcACAgttgAtGACTATATAAActTCCTtTGcGCcCTgGATTAcAg	1997
Seq_ID_5	ttTgATTtTAcGACATCgAAcTtagcGAtTAcgTaAAATTTCCTaTGctCcaTgGcTTaTga	1883
Seq_ID_8	ttTgATTtTAcGACATCgAAcTtagcGAtTAcgTaAAATTTCCTaTGctCcaTtGgcTaTga	1883
Seq_ID_16	tCTTgtCTAcGAtATTgacaCgaAGGAAtTAcgTggATTtTtTaTGcGCcaTtGgTTaTga	1906
Seq_ID_13	ACTagTtTAcGAtAcacaATtcaAGGAAtTAcAtatcTtattTaTGTGgTtTgaAaTacAC	659
Seq_ID_12	AaaaAaaaAaaAaA.....	1481
Seq_ID_9	.....	716
Seq_ID_6	.....	813
Consensus	a a	
Seq_ID_17	ATCTCAACAGATAAAAGCCATTACAAGGTCTCTGCTTATTCCGTGTTCCAACTCATCATT	1947
Seq_ID_7	.....	869
Seq_ID_11	ATCcgAgCAGATAAAAaCCATcACTAGGTCTTCTTATACTTGccCCAACcCATCATT	1721
Seq_ID_14	.....	748
Seq_ID_15	.....	748
Seq_ID_4	.....	1193
Seq_ID_3	.....	1193
Seq_ID_10	tcCaagtatGATcAAgGtCATcgCAAAAGcagaTatTTccTgCgnaaaCAAtaaggataT	2057
Seq_ID_5	cggcgAcgAtgTcgccGtgtTcgCgAGagatTCTtCTcgagtgaATTgCAgtgaAcgAag	1943
Seq_ID_8	cggcgAcgAtgTcgccGtgtTcgCgAGagatTCTtCTcgagtgaATTgCAgtgaAcgAag	1943
Seq_ID_16	tcCcaAAagaATttcAccgtTcgtaAaagataCTtCTTcagtgaaTTgCAGCgaAaagaa	1966
Seq_ID_13	AgaTCgACAGATgggAagCcTTctAcaacgCa.....gaaCaaGTTgCtcgaaAgtgaa	713
Seq_ID_12	.....	1481
Seq_ID_9	.....	716
Seq_ID_6	.....	813
Consensus		
Seq_ID_17	GGATTTAAACTATCCATCATTCAAGGCTATTCAATTATAACAGCAGCGAGTCAGACCC	2007
Seq_ID_7	.....	869
Seq_ID_11	GGAccTAAACTATCCATCTTCATTGcCTATTCAAcgtgAAAGCAGCGAGTtgGAtCC	1781
Seq_ID_14	.....	748
Seq_ID_15	.....	748
Seq_ID_4	.....	1193
Seq_ID_3	.....	1193
Seq_ID_10	aAGtTTg..CTgaCCtTaATTaccatCTtTTgCcATTcccttgGaAaCGgGcCtGgggC	2115
Seq_ID_5	tttggctActccgggAgaccTgAattaCccgTcgttcTccgttgggttaccgggtGAgag	2003
Seq_ID_8	tttggctActccgggAgaccTgAattaCccgTcgttcTccgttgggttaccgggtGAgag	2003
Seq_ID_16	tttagTtAgtccggggatTTgAattatccaTcgttcTcagtgttaccgggtGAgag	2022
Seq_ID_13	aagTaTtcctgAagCacaActCAattaCccTTcgttTTccAtttcaacttGg.agca...	768
Seq_ID_12	.....	1481
Seq_ID_9	.....	716
Seq_ID_6	.....	813
Consensus		

Seq_ID_17	TAAAAGGATAACAAGAATTCCAGAGGACGGTACTAATGTAGGAGAAG...	GTATGTCTGT	2064
Seq_ID_7	.....	.....	869
Seq_ID_11	TAcAAGagTACAAGAATTCaAGAGGACaGTGACTAATGTcGGAGAAG...	GTgTGTcGgA	1838
Seq_ID_14	.....	.....	748
Seq_ID_15	.....	.....	748
Seq_ID_4	.....	.....	1193
Seq_ID_3	.....	.....	1193
Seq_ID_10	gAAcAtGcaAatAGtAgTgCAccaaacGtgcacCagATaTAcGAGgAc...	tctaacaac	2172
Seq_ID_5	cAAcgGtgTggtaAATaCaAGcGGgtGGTGAaTAATGTAGGAaAAAatacagatgCTGT	.....	2063
Seq_ID_8	cAAcgGtgTggtaAATaCaAGcGGgtGGTGAaTAATGTAGGAaAAAatacagatgCTGT	.....	2063
Seq_ID_16	..AtAGtgcTggtaAAAaCaAGcGtgcTGGtAaaaATGTtGGcaggaatacAatgCgGT	.....	2080
Seq_ID_13	....AatcaACAAacATAcacaAGaACaGTGACAAcGTcGGgGAgG...	caATGTcAtc	821
Seq_ID_12	.....	.....	1481
Seq_ID_9	.....	.....	716
Seq_ID_6	.....	.....	813
Consensus			
Seq_ID_17	ATATACAGCAAATTGACCTCAATGGGTGATTATAAGCTAGTGTGACACCTGACAAGTT	.....	2124
Seq_ID_7	.....	.....	869
Seq_ID_11	ATATACAGCCgAgcTGACtgCAATGccTGgactTAAAGtTAGTGTGttCCTGAaAAGTT	.....	1898
Seq_ID_14	.....	.....	748
Seq_ID_15	.....	.....	748
Seq_ID_4	.....	.....	1193
Seq_ID_3	.....	.....	1193
Seq_ID_10	gTggaaAatCcAgcTacataCAAGGccTcAgTcTcttcgtAaatgcaggaaagtgaAgATT	.....	2232
Seq_ID_5	GTATgAAAGtGAatgCgcccGtcgtcggtggAgGtgcAATGTatCACCgGcgAACt	.....	2123
Seq_ID_8	GTATgAAAGtGAatgCgcccGtcgtcggtggAgGtgcAATGTatCACCgGcgAACt	.....	2123
Seq_ID_16	GTATgagGtgcAAAATaAtgcGccGGGTtcgggtggAgGtgcAatGTgactCCgactAACt	.....	2140
Seq_ID_13	tTATcgcGtgcAAgaTagttTCAccacaaaATgtTtccGtTgtTGTtaagCCTtcaActcT	.....	881
Seq_ID_12	.....	.....	1481
Seq_ID_9	.....	.....	716
Seq_ID_6	.....	.....	813
Consensus			
Seq_ID_17	GGTTTCAAAAGAGAAGTATGAAAAGCAAAGCTACAAGCTAAGGATAGAAGGTCCATTGCT	.....	2184
Seq_ID_7	.....	.....	869
Seq_ID_11	GGTTTCAAAAGAcAAGTATGAAAAGCAAAGCTACAAGCTgAGGATAGAAtGTCCAcact	.....	1958
Seq_ID_14	.....	.....	748
Seq_ID_15	.....	.....	748
Seq_ID_4	.....	.....	1193
Seq_ID_3	.....	.....	1193
Seq_ID_10	caggTTgAAccAcAAacActtActttcAgtCgAaAg...AAGGAaAagAAAaCCtacaCT	.....	2289
Seq_ID_5	tGTaTTCAggtGAGGAAAGcAAAGttgtcgTATgAGaTtAGctTAaAgaGTaaAaaGag	.....	2183
Seq_ID_8	tGTaTTCAggtGAGGAAAGcAAAGttgtcgTATgAGaTtAGctTAaAgaGTaaAaaGag	.....	2183
Seq_ID_16	tagTTTtAgcGAGAAaaATAgAgttgtcgTATgAGaTtAGttTtagcaGTaatggaag	.....	2200
Seq_ID_13	aaaATTTAcgaAGttGaATCAGAAGttgAcaTACcgagTgAcatTttccacaaaCAacaaa	.....	941
Seq_ID_12	.....	.....	1481
Seq_ID_9	.....	.....	716
Seq_ID_6	.....	.....	813
Consensus			

Seq_ID_17	AGTTGATATTATCTTG. TTTATGGTTCTTGAGCTGGGTGGAAACTAGCGGTAAATATGT	2243
Seq_ID_7	.....	869
Seq_ID_11	gaTgaATgaTtTCTTGgTTcATGGTTCTTaaAGCTGGGTGGAAaggGaGGTAAATATGT	2018
Seq_ID_14	.....	748
Seq_ID_15	.....	748
Seq_ID_4	.....	1193
Seq_ID_3	.....	1193
Seq_ID_10	gtgacATTcacTgcTagTTccaaGccaaTcaGgcacaacTaGcttgctCGactggaaATGg	2349
Seq_ID_5	tGgTGATTTgcagaTGg. TgAaGGggaaTTgaAtCTGcaT.....ttggGtcGattgaATGg	2238
Seq_ID_8	tGgTGATTTgcagaTGg. TgAaGGggaaTTgaAtCTGcaT.....ttggGtcGattgaATGg	2238
Seq_ID_16	tGTTGggTTggagagag. TaAaaGgTCTTgaAtCaGcaT.....ttggGtcaattggatGg	2255
Seq_ID_13	ca.....TcAcaaacaTggaAGtGTtc.....AtggatacTtgAaATGg	981
Seq_ID_12	.....	1481
Seq_ID_9	.....	716
Seq_ID_6	.....	813
Consensus		
Seq_ID_17	TGTAAAAAGTCCCATTGTCGCAACTA. CCATAAGAGTGGATCCTCTGTGAGGACAGAACT	2302
Seq_ID_7	.....	869
Seq_ID_11	aGTtAggAGcCCaATTGTTGcACaAattcTtAagtTtGATCCTtTGacAGGAtAGtACT	2078
Seq_ID_14	.....	748
Seq_ID_15	.....	748
Seq_ID_4	.....C.....	1194
Seq_ID_3	.....C.....	1194
Seq_ID_10	TcagAtggacaaCATgtTgttgcTTAGtggacatgattatGctaa	2409
Seq_ID_5	aGTgAtggattCAcaaTgtgAgaagcCCAattGcGgtGcgttggcGTCActAttctgaT	2298
Seq_ID_8	aGTgAtggattCAcaaTgtgAgaagcCCAattGcGgtGcgttggcGTCActAttctgaT	2298
Seq_ID_16	aGTgAtggattCAcaGcgtgAggagtCCAattGcGgtGcattggctactccACtctgCT	2315
Seq_ID_13	acaAgtgAtaaagCATTtTgtAgaagtCCAattGtgttATTCTacaaGAGcAtgaAAca	1041
Seq_ID_12	.....	1481
Seq_ID_9	.....	716
Seq_ID_6	.....	813
Consensus	C	
Seq_ID_17	GATTATGAGTCCTGTATTCTGAAAATGTGATACAGTGTGAATAATTGTGAAGTTAAATT	2362
Seq_ID_7	.....	869
Seq_ID_11	GATTActga....aTATTCCactAAacatgTctttTGAGaAcatgaTaTatAcaTActTg	2134
Seq_ID_14	.....	748
Seq_ID_15	.....	748
Seq_ID_4	.....	1194
Seq_ID_3	.....	1194
Seq_ID_10	ttcTATAAGTCaTtcActTgcaAAAtgTacaAgtgcaaatattcctATaaaatAaTTActag	2469
Seq_ID_5	GcagcatccatgTGagTaaTGgAtgatTGTcTTtatATtgcatgcaTGgAccaAtAaa	2358
Seq_ID_8	GcagcatccatgTGagTaaTGgAtgatTGTcTTtatATtgcatgcaTGgAccaAtAaa	2358
Seq_ID_16	acagAatctcgAGGactatgaAGcaAGaagatA.attgTGctAAAtcTgcAaa	2374
Seq_ID_13	ccagAaGAtTagTG..TctTtActtTtTaATAattTGtTcATTtaTaattAAccc.cgTa	1098
Seq_ID_12	.....	1481
Seq_ID_9	.....	716
Seq_ID_6	.....	813
Consensus		

Seq_ID_17	.....	2426
Seq_ID_7	.....	869
Seq_ID_11	.....	2188
Seq_ID_14	.....	748
Seq_ID_15	.....	748
Seq_ID_4	.....	1194
Seq_ID_3	.....	1194
Seq_ID_10	aattggcttcgaaaaaaaaaaaaaaaaaaaaaaa	2691
Seq_ID_5	.....	2533
Seq_ID_8	.....	2532
Seq_ID_16	.....	2538
Seq_ID_13	.....	1193
Seq_ID_12	.....	1481
Seq_ID_9	.....	716
Seq_ID_6	.....	813
Consensus		

Figure 16B

